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1955

ARTISAN

672

WARM AIR HEATING
RESIDENTIAL AIR CONDITIONING
SHEET METAL CONTRACTING

January 1955
DIRECTORY &
SHOW NUMBER

See the yellow pages for Directory Section

CONTENTS... PAGE 4

**GET AHEAD
in '55 with**

AIR CONTROL

**THE COMPLETE LINE
THAT'S ALWAYS AHEAD IN
STYLE, ENGINEERING, PROFITS**

One source for sure-shot, sure-satisfaction sales . . . that's the reason you'll be better off this year and every year with Air Control. Here's the one headquarters you can count on for the finest in registers, grilles, diffusers, ventilators, etc. You get the newest and most advanced designs, as well as the best in the time-tested, proven equipment. Meet every warm air heating and air conditioning requirement with Air Control's complete line — a wide selection of sizes and styles. Whatever it takes to insure an efficient, profitable job, Air Control makes it — and that means better profits for you.

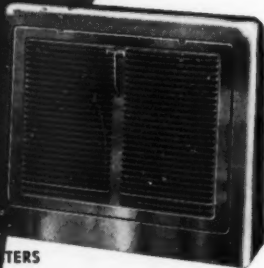
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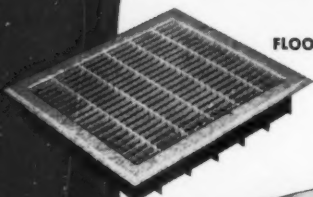
CEILING DIFFUSERS



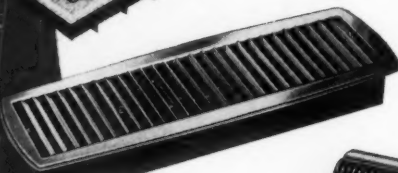
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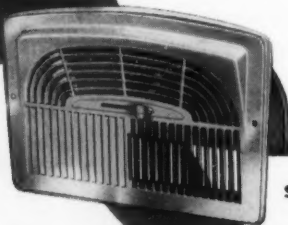
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FLOOR DIFFUSERS



SIDEWALL DIFFUSERS



BASEBOARD DIFFUSERS

SEND TODAY
FOR THE COMPLETE AIR CONTROL CATALOG
NO. 54-2500 AND YOUR ORDER FOR DETAILS. STAMP
NOW TO CASH IN ON THE NEW AIR CONTROL LINE!



Air Control

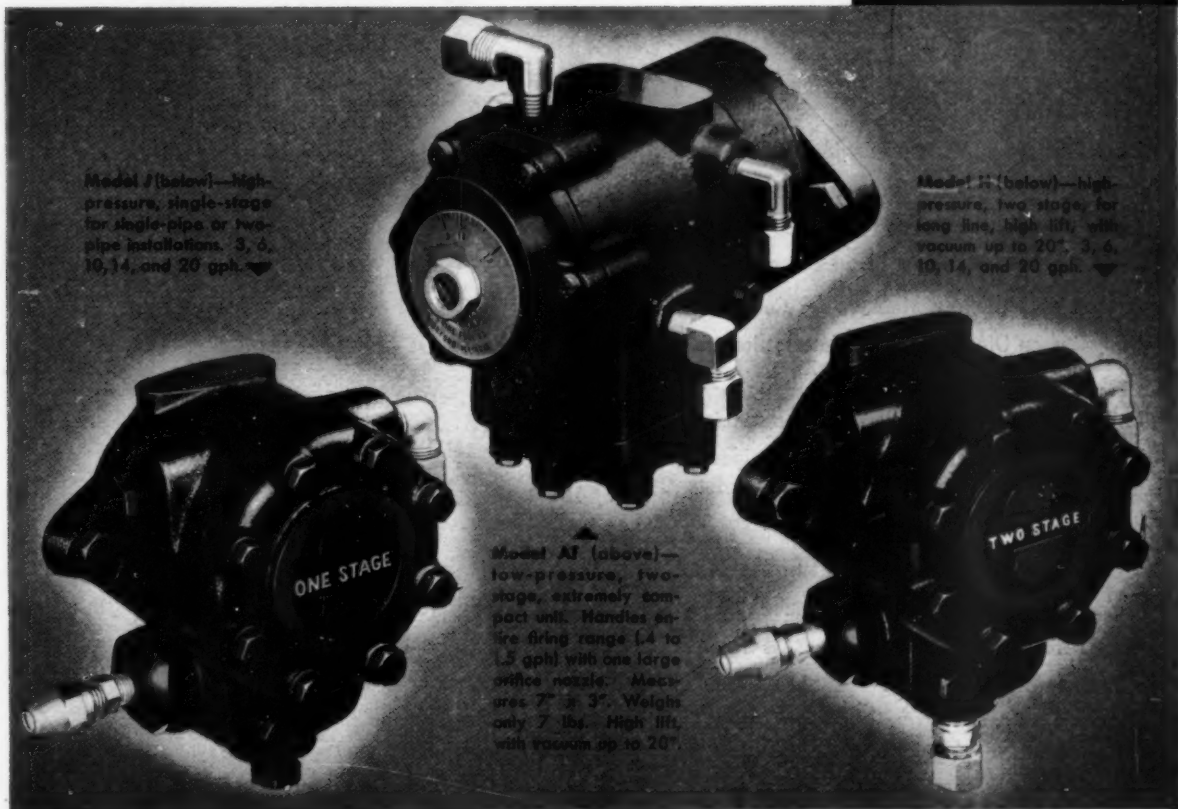
PRODUCTS, INC.
Dept. A COOPERSVILLE, MICH.

**See this Golden Anniversary line
at the ASHVE exposition**

SUNDSTRAND

1905

1955



As Sundstrand celebrates its Golden Anniversary this year, it is only fitting that we bring to you a fine family of fuel units which has no equal anywhere. From compact, modern styling . . . to proved efficiency in operation . . . to simplified servicing . . . it's easy to see why the Sundstrand line has become an overwhelming first choice with dealers, servicemen, service stations, manufacturers, and users.

When you come to the ASHVE Exposition in Philadelphia, be sure to stop at the

Sundstrand booth. Let our engineers show you how improved porting has minimized your installation problems. See for yourself how a constant, even flow of fuel oil is provided, free from turbulence. Take out the one-piece strainer—check on its ease of cleaning and replacement. Listen to the units in operation—find out how the new nylon pillow cushions tank hum. If you aren't coming to Philadelphia, write us now for latest literature and prices on Sundstrand's Golden Anniversary Line.

HIGH-PRESSURE UNITS

Single- and Two-Stage for 3, 6, 10, 14, 20 gph firing rates . . . Strainer capacities—6, 10, 15, 20 gph. (Can be furnished for either fuel oil or gasoline.)

LOW-PRESSURE UNITS

Two-Stage with fixed or variable metering. For .4 to 1.5 gph firing rates.

SUNDSTRAND MACHINE TOOL CO.

Hydraulic Division, Rockford, Illinois

Made in Canada by John Inglis, Ltd.

14 Strachan Ave., Toronto

Made in Sweden by Sundstrand Hydraulic AB, Stockholm

SUNDSTRAND

A name to remember in **FUEL UNITS**

2672,0051

AMERICAN ARTISAN

JANUARY 1955

FEATURES

Insulation Trims Air Conditioning Costs	78
Modern Cupola Blends Three Metals	85
Radiant-Convection Heating for Office Building	86
Tips on Selecting a Sheet Metal Estimator	88
Put Air Conditioning Maintenance Contracts to Work	90
Designing an Off-Center Taper Intersection	95
Heat Pump Gets a Cold-Climate Test	101
Philadelphia Heating Dealers Up Commercial Sales ..	132
Weld Stainless Steel With Standard Equipment	140
What About Your Heating Equipment Warranty?	161
Show Section (complete information on the Air Con- ditioning Exposition being held in Philadelphia this month)	105
1955 Directory Section of Warm Air Heating, Resi- dential Air Conditioning and Sheet Metal Products (opposite page 268)	1d

CONVENTION REPORTS

Experts See Good Year for Warm Air Heating	98
--	----

DEPARTMENTS

The Editor's Notebook	6
What's Happening	33
Washington Letter	43
What the Associations Are Doing	63
Equipment Developments	71
Editorial: Eye Appeal — A Big Sales Tool	77
Hugh Reid's Pattern Problem	95
You and the Law	161
New Literature	240
We Hear That	246
Appointments	248
Index to Advertisers	132d

Founded 1864

Volume 92 No. 1

WARM AIR HEATING

RESIDENTIAL AIR CONDITIONING

SHEET METAL CONTRACTING

Merged with American Artisan are "Warm Air Heating" and "Furnaces and Sheet Metals"

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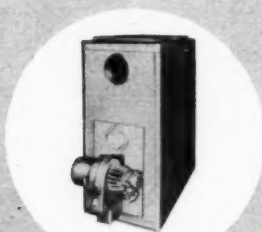


Syncromatic

MODEL "500"

OIL-FIRED HI-BOY LO-BOY COUNTERFLOW DELUXE LO-BOY

The deluxe Lo-Boy "500" with beautiful hammerloid green enameled jacket is a real space saver being only 24" wide and 49½" high. For low cost heating, minimum of service, and all around heating satisfaction, the oil-fired "500" series is the biggest value in automatic heating today.



STANDARD LO-BOY
Without burner enclosure

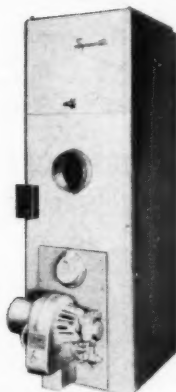
**SUPERBLY DESIGNED,
HIGHLY EFFICIENT WARM
AIR FURNACES TO ANSWER
EVERY REQUIREMENT**



GAS CONVERSION KIT

The ultimate in efficient quiet gas burners designed and developed by Syncromatic to give greater heat diffusion on the heat exchanger walls.

Burner is A.G.A. Listed



HI-BOY

This compact Hi-Boy unit was developed by Syncromatic to meet the most exacting conditions. It incorporates that reserve plus - your insurance for years of satisfactory operation. All "500" models incorporate the famous patented Counterflow heat exchanger principle which extracts the maximum heat units from the oil.

COUNTERFLOW

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Syncromatic Corporation

WATERTOWN, WISCONSIN

the editor's notebook

Thumbing Through This Month's Artisan

... we find how *Heating and Cooling With a Heat Pump System in Wisconsin* provides year 'round comfort when the system is designed to use an insulated storage tank where heat extracted from an underground water source can be stored until needed. Likewise, during the summer, the storage tank can store chilled water for use during the period when the daily load is at its peak.

... we are shown the procedures and precautions involved in *Welding Stainless Steel With Standard Equipment* by E. M. Rains, who outlines a planned sequence of operations and describes several methods. We find that using efficient heat-removing methods and guarding against warpage can produce strong, ductile welds.

... we find the answer to a request for information about the part insulation plays in air conditioned homes. In March, 1954, the *American Artisan* published an article, *How Much Does Insulation Save in Air Conditioning?* This article was based on a study of a small residence on the grounds of the University of Illinois at Urbana. It showed that \$240.00 spent for adequate insulation in this house cut the cost of equipment necessary to air condition the house by \$840.00. Furthermore, operating costs were reduced by 58 percent per design day. Requests from readers for comparable information about houses in other cities and in different cli-

INCREASE EQUIPMENT SALES
...cut down delivery costs

Sentry ODF® Tank Gauge tells drivers what they want to know
at point of delivery!

"THAT LITTLE SENTRY GAUGE SURE SAVES US BOTH A LOT OF TROUBLE!"

TELLS WHEN OIL IS NEEDED

*Oil Dealer's Friend

... HOW MUCH IS NEEDED

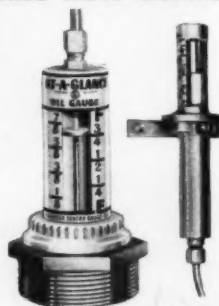
... WHEN TO STOP FILLING

Sentry "ODF" remote reading gauge

ONLY *Sentry* OFFERS SUCH A COMPLETE LINE OF DIRECT AND REMOTE READING TANK GAUGES

Above is SENTRY'S newest — The ODF At-A-Glance tank gauge that's setting new records in building sales and customer goodwill. Located outside of building at fill pipe, this easy-to-read weather-proof gauge shows the exact oil level in the indoor tank. Saves costly time consuming trips to basement, unnecessary hose unreeeling and eliminates over-flow. Permits delivery without disturbing customer.

Other constant-register SENTRY gauges include combination tank and remote reading, barrel gauges, direct reading, and gauges for stove and space heater tank. Write today for full information about these fast moving business getters. Advertising aids available.



Combination At-A-Glance tank and remote reading gauges



Sentry stove and space heater gauges



Sentry At-A-Glance barrel gauges



Sentry At-A-Glance tank gauge



Sentry superior quality Thermo-Gauge



On guard—
24 hours a day

KRUEGER *Sentry* GAUGES
GREEN BAY • WISCONSIN

the editor's notebook

(continued)

mates has prompted the publishing of this month's article, *Cutting Air Conditioning Costs with Insulation*. Here the authors take the same house described in March and theoretically transport it to seven cities in the United States, all of which have widely varying heating and cooling conditions. The information given indicates the effect of adequate insulation on both heating and cooling costs in homes throughout the country.

... and we trace the history of warm air heating in Philadelphia from a period of instability to the present point where *Philadelphia Dealers Expand Their Market* to commercial applications. Author John E. Phillips tells a remarkable story of progress due largely to efforts by sheet metal contractors, dealers, manufacturers and wholesalers to overcome the industry's weaknesses and establish it as the leader in commercial use in the Quaker City.

... and we visit the new offices of the J. P. Glasby Mfg. Co., where a *Radiant, Convection System Combines* for an ideal solution to a complex heating problem. We see how combining the advantages of the two systems has been found to heat and ventilate all offices adequately, including those which are often closed for long conference periods.

AGA Studies Ways To Cut Accident Rate

I WAS somewhat shocked to learn, from a report sent by the American Gas Associa-

Specify ***CONTINENTAL SHEETS**

**EASY TO WORK
TOUGH TO WEAR DOWN**



Manufacturers and fabricators like the special qualities found in Continental steel sheets . . . the ease with which they can be worked . . . the way they stand up under the most difficult forming operations. Continental sheets have been *proved* in many product uses. For a premium, highly rust resistant sheet, ask for KONIK. If you need sheets to take and hold fine finishes, you'll like GALVANNEALED or DULL-COAT. COPPER STEEL is noted for rust resistance and workability. Ask your jobber or write Continental. Take advantage of Continental's experience and service—be sure you get the right sheet for your product.

* TR. MRKS. REG. U.S. PAT. OFF.

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STEEL**

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PRODUCERS OF Steel Sheets, including: Continental GALVANIZED, KONIK and COPPER-STEEL culvert sheets,

COPPER-STEEL Galvanized, KONIK steel sheets Galvanized, DULL COAT, Continental GALVANNEALED, ELECTRICAL, Hot Rolled Pickled,

ALSO, Manufacturer's Wire in many sizes, shapes, tempers, and finishes, Continental Chain Link Fence, Nails, and other steel products,

the editor's notebook

(continued)

tion's accident prevention committee, that more than \$41 billion had been spent on accidents in the United States during the last five years. Last year, AGA says, the gas industry alone experienced more than 300,000 man days lost due to accidents, at an estimated wage cost of \$3,500,000 to the industry. To keep such losses down, the committee recommends such measures as analyses of jobs and methods of handling them, periodic physical examinations for drivers of motor vehicles, training of employees in fire fighting, etc. Earl H. Eacker, president of AGA, says, "While the industry has progressed greatly since the late 20's in its safety efforts, such progress is not fully consistent with the industry's growth. Top management must not only believe in safety — it must insist on it."

Finds Helpful Data in AC Article

N. E. HILL, manager of product engineering for Mueller Climatrol, writes to tell us of his interest in S. W. Reid's presentation, *How to Look for Air Conditioning Trouble*. "This is a very informative article," he says. "If there are tear sheets available, I'd appreciate your sending me several sets. I'd like to distribute copies among our engineering personnel."

Hugh Reid's Pattern Book Now Available

I WAS pleased to receive from Hugh B. Reid, who writes a monthly article in *American Artisan* on the simplified method for laying out sheet metal patterns, a copy of his 224 page book, *Sheet Metal Layout Simplified*. In this book, the development of



Enthusiastic reception by the public explains the higher sales frequency of the Sundstrand all-electric oil burners.

With a Sundstrand, the most modern concepts of warm air heating are realized.

... That's not enough; with a Sundstrand, initial low-cost is matched by long-span oil burner performance.

... These values and the Sundstrand reputation for the finest in oil heating add up to complete customer satisfaction. Foot or bracket mounted, all Sundstrand oil burners are listed as standard by Underwriters' Laboratories . . . and meet all state and local requirements.

A leader in oil heating for 33 years.

write to

SUNDSTRAND ENGINEERING CO.
ROCKFORD, ILLINOIS

the editor's notebook

(continued)

sheet metal patterns for hard-to-make fittings has been reduced to elementary procedure as performed every day in the sheet metal shop. The book is not a rehash of old material to be filed for occasional reference, but is intended to serve as a constant guide in the solution of numerous problems that arise daily in the shop, drafting and engineering rooms. The subject material is divided into five parts — Geometry, Drafting, Pattern Problems, Safety Guides, and the appendix section. The appendix section consists of four pages of formulas, tank capacities, motor and fan capacities and air pressures. Price of the book is \$5.50. It may be purchased from Edwards Bros., Inc., 1745 S. State St., Ann Arbor, Mich.

U. S. Predicts Record Construction for 1955

THE GOVERNMENT is forecasting a new record breaking construction year in 1955 with an increase in total construction outlays of about 7 percent to \$39½ billion. The Departments of Commerce and Labor, which made the 1955 forecast, had previously predicted on the basis of the first nine months of 1954 that construction in 1954 would set a new high of \$37 billion, compared to \$35¼ billion in 1953. Both private and public construction will rise to new highs this year, according to the outlook given in the joint forecast. Private construction will get its biggest boost from an increase in non-farm residential building to about \$15 billion, a 13 percent increase. Lying behind the predicted big boost in non-farm residential building predicted for



**Outstanding Leadership in Design,
Quality, Service, Performance**

NOW COMPLETELY CARTONED



VISIT US

at The Heating & Ventilating Show

BOOTH 634

A COMPLETE LINE OF

STANDARDIZED PIPE,

DUCT, AND FITTINGS

FOR ALL TYPES OF

RESIDENTIAL HEATING

AND AIR CONDITIONING

INSTALLATIONS.

Write for General Catalog 453, Perimeter Catalog 383



Adelta Manufacturing Company, Inc.

21st & Ellsworth Streets, Philadelphia 46, Pa.



the editor's notebook

(continued)

1955, the government report said, will be "a continued strong demand for new homes, ready availability of mortgage money, and the easier credit terms provided by the 1954 housing legislation."

Sees More Steel Produced in '55

BENJAMIN F. FAIRLESS, chairman of the board of United States Steel Corp., predicts the American steel industry this year will surpass by 5 to 10 million tons its 1954 production, which amounted to some 86 million tons. As for the American economy generally, Mr. Fairless said, "My personal opinion is that the year 1955 should be one of moderate gains all along the line, and that business as a whole will gather its strength and regroup its forces for a still more rapid expansion in the latter part of the 1950s."

Predicts Banner Year For Air Conditioning

I WAS interested in the reaction of A. J. De Fino, vice president and general manager of Fedders-Quigan Corp., to pessimism on the room air conditioning industry's prospects for 1955. Mr. De Fino, speaking at a distributors' meeting held recently in White Sulphur Springs, W. Va., stated that his company is launching a \$20 million plant expansion program and is planning one of the most extensive merchandising campaigns in the history of the industry. "This certainly does not look to me like there is any 'chill' on the air conditioning business," he said. At the same meeting, Robert E. Cassatt, sales manager of the refrigeration

the editor's notebook

(continued)

appliance division, expressed the opinion that air conditioners are rapidly becoming accepted by the public as necessity rather than luxury items. He pointed out that in one moderate housing development in Philadelphia, 20 percent of the homes were equipped with at least one air conditioner. "This compares," he said, "with the national average of 5 percent. Thus, the potential of the home air conditioner industry is only being scratched."

Sees Steady Market For Home Conditioning

SPEAKING recently on the subject of the residential air conditioning market, David E. Feinberg pointed to the tremendous potential provided by new home construction plus the millions of existing homes heated by warm air. Mr. Feinberg, president of the United States Air Conditioning Corp., also noted that reduced initial and operating costs, made possible by engineering advances, have brought air conditioning "within reach of the average home owner, who has already come to regard all-year comfort as a necessity in places of work and entertainment."

U. S. Still a Nation Of Small Businesses

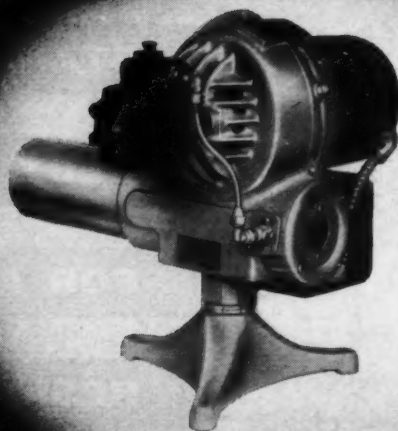
YOU'VE undoubtedly heard these complaints:

There's no opportunity in little business any more. It takes too much money to start a business nowadays. Anyhow, the big companies have everything tied up.

"There's not a word of truth in such grumbling," says the U. S. Chamber of Commerce — and presents

Nu-Way

The World's Finest Oil Burner



THE
Nu-Way CORPORATION

ROCK ISLAND, ILLINOIS

Sold through jobbers and distributors

The adopted standard on leading furnaces and boilers

"Automatic Oil Heat Exclusively Since 1921"

PUSH... SNAP...

IT'S READY!



CHAMPION SNAP LOCK PIPE

CHAMPION makes this snap-lock seam with precision... the edge with the raised prongs fits easily into the slot with the concealed locking groove. You merely push the edges together and SNAP! — the 2-foot or 5-foot pipe section is ready to go up. This positive-type lock stays secure, regardless of how pipe is handled. Easily re-opened if necessary.

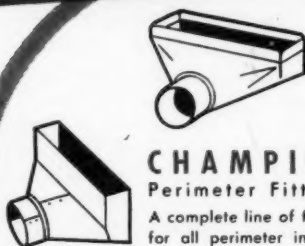
Order NOW! Get prompt shipment of Champion 5' and 2' pipe, elbows and fittings.

CHAMPION

CHAMPION FURNACE PIPE COMPANY
211 Eaton Street, Peoria, Illinois • Phone 6-4639



CHAMPION "Two Footers"
Snap-lock pipe, 5' lengths, packed
16 (50') per carton, 28-30 ga. 4",
5", 6", 7" & 8".



CHAMPION Perimeter Fittings

A complete line of fittings
for all perimeter installa-
tions.



CHAMPION "Two Footers"

Snap-lock pipe,
2' lengths, packed 20' or 40' per car-
ton. 24-26-28-30 ga. 4", 5", 6", 7"
& 8".



CHAMPION 90° 4-pc. Adjustable Elbows

Extrastrong, easy to adjust, always
fit perfectly. Twelve per carton.

the editor's

notebook

(continued)

facts and figures that conclusively refute such statements. For example —

1) A total of 340,500 businesses, mostly small, were started in 1952.

2) The proportion of small, medium and large firms in the economy hasn't changed much in 50 years.

3) In relation to population, the number of business firms of all types is going up. For example, between 1857 and 1951, the number of enterprises for every 1000 persons increased from seven to 17.

One table shows that three out of four firms have no more than three employees. Another discloses that about two out of three manufacturing plants — which most people think of as being large operations — have fewer than 20 employees. The tables are from the Chamber's study, *Small Business: Its Role and Its Problems*, which may be obtained for 50 cents from the Chamber of Commerce of the United States, Washington 6, D. C.

BRAB Studies Curtain Wall in Building

I WAS GLAD to learn that a study of metal curtain wall is being made by the Building Research Advisory Board. BRAB is seeking information via questionnaires which have been sent to the owners and contractors of more than 500 buildings using such curtain walls. The American Institute of Architects is also gathering the opinions and recommendations of its members. The material will be evaluated, coordinated and assembled into a report which will serve as a guide for future technological development.

NATIONAL LOCK Special Fasteners save you cash on the ^{ASSEMBLY} line!

3 NEW FASTENERS specifically designed FOR YOUR REQUIREMENTS

PHILLIPS FINISHING HEAD SCREWS

This special one-piece fastener gives the appearance of a screw and separate finishing washer. Requires a single application. Saves time on the line . . . cuts fastener costs. Available as sheet metal screws, Sems, wood, machine and thread-cutting screws.

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SPECIAL-PURPOSE HEXAGON POINTED BOLTS

New hexagon point allows bolt adjustment, even after head has been covered in assembly. Available in any head style . . . also as Sems with pre-assembled lock washers or stampings. Can be used as a thread cutting screw without damaging the point.

LOOK TO NATIONAL LOCK FOR THE FINEST IN STANDARD AND CUSTOM-BUILT HARDWARE

Handles • Hinges • Catches • Pulls
Sems • Keps • Screws • Bolts
Assembled Crating Bolts



NATIONAL LOCK COMPANY

Rockford, Illinois

the editor's

notebook

(continued)

Likes Article on Refrigeration System

IT'S ALWAYS interesting and helpful to receive comments and criticisms on articles being prepared for publication in *American Artisan*. And (being human) we prefer the commendatory remarks, such as the one from Fred A. Paine of Worthington Corp., sent in response to our invitation to comment on S. W. Reid's contribution to the December issue, *Techniques for Charging A Refrigeration System*. "Thanks for the opportunity of reviewing this excellent article," he writes. "I forwarded the article to our service department for review, and their only comment was that they thought it was an exceptionally fine article."

Cites Growing Interest In Electric Heating

I WAS interested in the report by Westinghouse Electric Corp. that electric heating of homes is gaining ground. Stuart L. Forsyth, manager of the company's Electric Heating for Homes department, says there is increasing interest throughout the country in the use of individual wall and portable units for complete heating as well as auxiliary heating, and Westinghouse sales for the first half of 1954 are running about 20 percent ahead of the same period last year.

It looks to me as if another element which needs to be watched very carefully has appeared in the already competitive field of central heating.

Clyde M. Barnes

EDITOR

16 Men and 8 Brakes

or **1**

Man and a LOCKFORMER



BETTER LOCKS

—FASTER. One man and a Lockformer makes more Pittsburgh Locks than sixteen men working with eight brakes. And Pittsburghs made on the Lockformer are perfectly uniform . . . look like the quality work they really are . . . assemble easier and faster without further prying open by hand.

MULTI-PURPOSE

Lockformers equipped with extended shafts for Auxiliary Rolls also make Double Seams, Standing Seams, Drive Cleats and Right Angle Flanges . . . and, if equipped with the Flanging or Slitting Attachments, are power flangers or power slitters as well as lock-rolling machines. Lockformers can be set up for as many as three different jobs without change-over.

PROVEN DEPENDABILITY

There are more than 28,000 Lockformers in use today. Machines delivered over 17 years ago are still giving trouble-free service, day in and day out. Because they cut over-all fabrication costs in half, Lockformers pay for themselves quickly out of the "extra" profits they earn!

Lockformers, Cleatformers, Flangers, Slitters, Standing S Cleat Machines, Easy Edgers, Auxiliary Rolls and Attachments, Special Roll-forming Equipment



There is a Lockformer to Fit YOUR Needs and Your Budget in Lockformers Complete Line of Lock-Rolling Equipment

Send for your free copy of
the Lockformer Catalog



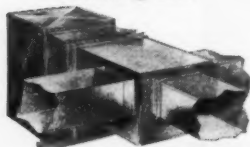
THE LOCKFORMER CO.

4615 WEST ROOSEVELT ROAD • CHICAGO 50, ILLINOIS

...the industry's most complete

yearound air conditioning line

Duct Type
Cooling Unit

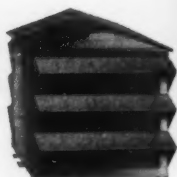


Assure yourself profits 365 days a year. Offer your customers a choice of more than 140 heating and cooling units . . . all featuring the most modern developments and design . . . to fit any type or size house.

Get your furnaces, fittings and cooling units *all from one source* under one brand name . . . WILLIAMSON. Let us show you in detail how comparison proves WILLIAMSON selling superiority all year 'round.

WILLIAMSON

HEATING & COOLING



Compressor
Unit



Counter-Flow
Heating and
Cooling Unit



Space
Cooling Unit

act for profits everyday!

THE WILLIAMSON HEATER CO.

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Gentlemen: Rush me details on WILLIAMSON
year 'round profits.

Name.....Title.....

Firm.....

Address.....

City.....Zone.....State.....

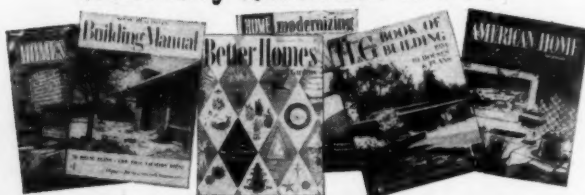
COMPLETE HEATING LINE . . .

- GASAVER and OILSAVER Deluxe Furnaces . . . 1st really new feature in warm air heating in last quarter century. Lo-Boy, Hi-Boy, Gravity
- FLO-WARM Gas, Oil and Coal Furnaces . . . highest quality at price unmatched for value per dollar. Lo-Boy, Hi-Boy, Counter-Flow, Horizontal
- ASSEMBLED Gas and Oil Furnaces . . . WILLIAMSON quality at competitive prices—factory assembled, wired and tested. Lo-Boy, Hi-Boy, Counter-Flow, Horizontal.

COMPLETE COOLING LINE . . .

- . . . WATERLESS AIRrefrigeration with unsurpassed efficiency—featuring exclusive Counter-Flow or Duct Evaporator cooling that requires no additional floor space in a slab perimeter or basement house.
- . . . WATER-COOLED Units that need only 2.7 sq. ft. of floor space.
- DUCT, PIPE AND FITTINGS for any Heating or Cooling System . . . die-cut, pre-fabricated.

Nationally Advertised in . . .





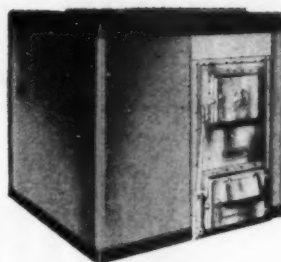
Gasaver Lo-Boy



Oil Flo-Warm Horizontal



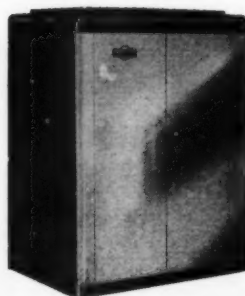
Assembled
Gas Horizontal



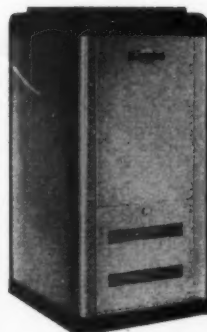
Coal Flo-Warm

SON

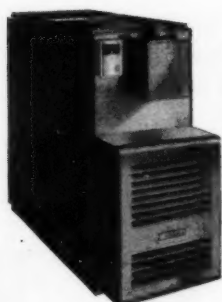
COOLING



Oilsaver Lo-Boy



Gasaver Gravity



Assembled
Gas Lo-Boy



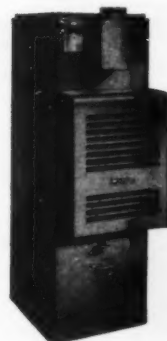
Assembled
Oil Lo-Boy



Assembled
Oil Hi-Boy



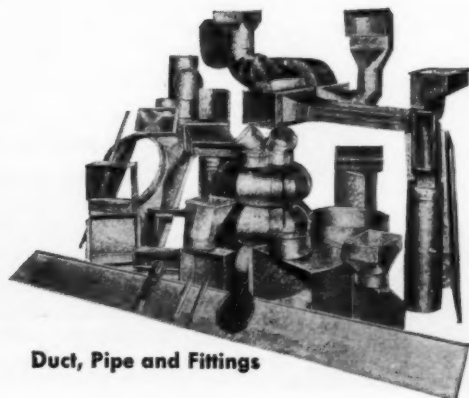
Assembled Oil
Counter-Flow



Assembled
Gas Hi-Boy



Gas Flo-Warm Lo-Boy



Duct, Pipe and Fittings



Oil Flo-Warm
Hi-Boy

NOW... You Can Safely Put A

With *Luxaire*®

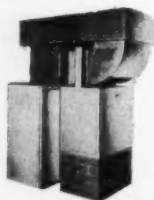
Unit
Equipped
with
Gas Burner



The same
Unit
equipped
with
Oil Burner



Front view
with attractive
Add-On
Vestibule



"Add-On"
Summer
Cooling Units
2-3 and 5 Ton.



THE COMBINATION HEATING AND
COOLING UNIT AVAILABLE
IN 2 SIZES.

New

Counterflow year 'round Air Conditioning
Units, with Air Discharge at base.

2 Popular Sizes

2 Ton Cooling, 100,000 BTU Heating

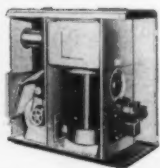
3 Ton Cooling, 140,000 BTU Heating

New

Matched Units . . . 5 Ton Cooling with
either (1) 140,000 BTU, (2) 175,000 BTU,
or (3) 220,000 BTU Heating

ALL
Luxaire
COOLING CIRCUITS
CARRY A
5 YEAR PROTECTION
PLAN

Air Conditioning Units
As Gas Units
70,000 to 250,000 B.T.U.
As Oil Units
84,000 to 212,000 B.T.U.



Counterflow Units
As Gas Units
65,000 to 140,000 B.T.U.
As Oil Units
84,000 to 123,000 B.T.U.



Horizontal Furnaces
3 NEW Models for 1955
Gas 65,000 to 100,000
B.T.U. Input
Oil 84,000 to 224,000
B.T.U. Output



Gas
Conversion
Burners
3 Sizes



Gas
Unit Heaters
5 Sizes

Utility Units
As Gas Units
65,000 to
140,000 B.T.U.
As Oil Units
84,000 to
123,000 B.T.U.



Gravity
Furnaces
As Gas Units
86,000 to
130,000 B.T.U.
As Oil Units
78,800 to
105,000 B.T.U.



INCINERATORS
with or without
Gas Burner

Luxaire Units are
Designed, Approved to Burn
Either GAS or OIL with
Equal Efficiency

See the Luxaire Exhibit at the
INTERNATIONAL HEATING and VENTILATING
EXPOSITION • BOOTHS NO. 36 and 57



Oil
Conversion
Burners
6 Sizes

Luxaire The Biggest . . . The Most Complete . . . The Most-In-

Put ALL Your Eggs in ONE Basket

... Because *Luxaire*[®]

BUILDS MORE TYPES AND SIZES OF

... Year 'Round Air Conditioning Units

Heats in Winter ... Cools in Summer, with 2 - 3 or 5 Ton Cooling Capacities in combination with a flexible range of heating capacities, burning EITHER Gas or Oil. The complete Unit, housed in 1 cabinet, requires less installation space than many standard size Heating Units.

... Summer Cooling Units

For installation to operate in conjunction with virtually any existing Forced Air Heating Installation. Also self-contained Space Cooling Units.

... Winter Air Conditioning Units ... Gravity Furnaces

In all types and sizes for ANY type of heating or air conditioning installation. Burn either Gas or Oil.

Putting all your eggs in one basket is no longer a questionable theory. Luxaire has proved the value of concentrating your requirements with the most advanced, most complete line of equipment for meeting the needs of modern builders and homeowners.

Yes, Luxaire is out-ahead with foresighted anticipation of "what's new" and "what's best" to meet market demands — way-ahead in providing Luxaire dealers with every type of unit for both winter heating and summer cooling.

Whatever the demand — heating or cooling, combination heating and cooling, conversion from winter air conditioning to year 'round heating and cooling, or converting an oil furnace to gas — Luxaire dealers have the right answers with smart looking, profit-producing units.

SOON TO ARRIVE FOR '55

1. Counterflow Models of the Year 'Round

Air Conditioning Unit, in two desirable sizes — 2 Ton Cooling, 100,000 B.T.U. Heating; 3 Ton Cooling, 140,000 B.T.U. Heating.

2. Matched Year 'Round Air Conditioning Units, with 5 Ton Cooling and (1) 140,000 B.T.U., (2) 175,000 B.T.U. or (3) 220,000 B.T.U. Heating.
3. New Air Cooled Refrigeration Units, with Compressor located some distance from Cooling Coil.
4. 2 New Sizes of Oil Horizontal Furnaces, 84,000 B.T.U. and 220,000 B.T.U. output.
5. New Gas Horizontal Furnaces, 84,000 B.T.U. input, with larger sizes to follow shortly.

See your Luxaire jobber today! Let him explain in more detail, the unusual profitable advantages enjoyed by every Luxaire dealer.

A *Luxaire*[®] Dealer is NOW a "Year 'Round Dealer"
In Business 365 Days a Year

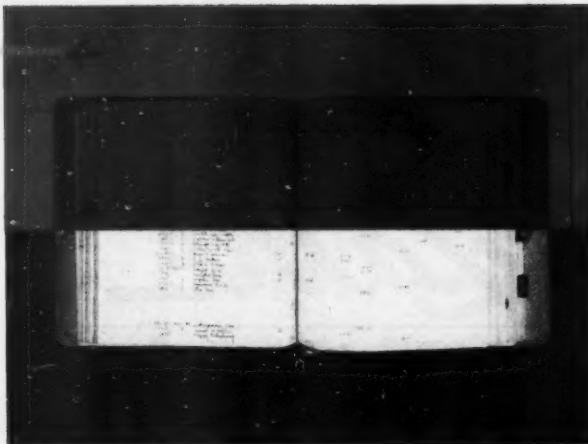
See the
Luxaire
Exhibit at the
INTERNATIONAL HEATING
and VENTILATING
EXPOSITION
BOOTH No. 36 and 57

THE C. A. OLSEN MANUFACTURING COMPANY • ELYRIA, OHIO

Luxaire

HEATING & AIR CONDITIONING UNITS

-In- Demand-Line ... You Can Fill Any Order With a *Luxaire*[®]



**KEEP THE JOB OUT OF THE RED
WITH UTILITY'S**

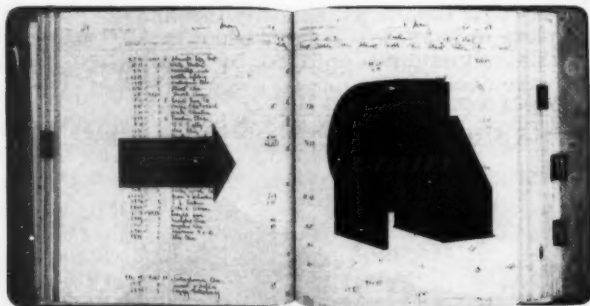
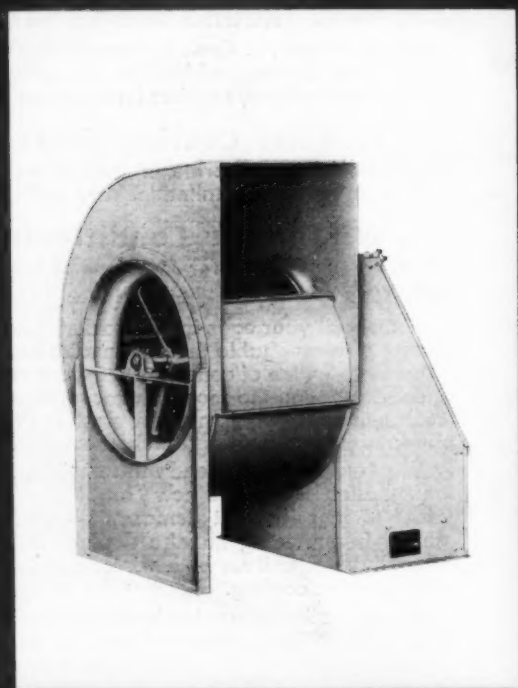
**NEW ENCLOSED DRIVE BLOWERS
10" TO 36"**

You've demanded it — Utility has perfected it for you —
a full series of high quality enclosed drive blowers
designed to withstand prolonged wind and weather abuse
to provide long life with low upkeep.

Easy to install, these blowers require a minimum of
floor space. Completely self-contained unit-pulleys, V-belts
and motors are accurately pre-engineered. Weatherproof
enclosures for motors and drives make these blowers
ideal for outdoor installation.

Because roof installations are forgotten, they frequently
break down from lubrication neglect. To prevent this,
all sizes feature permanently sealed, pre-greased ball bearings,
requiring no further lubrication — forever impervious to
dirt, dust, moisture and drastic temperature changes.

Here is another example of Utility quality and value —
the factors which help you sell the job in the first place,
insure your profit in the second. Plan with Utility . . .
and know you'll never see red on any job!



Let us send you full information on Utility Blowers. Write . . .

UTILITY FAN CORPORATION

911 EAST 59TH STREET, LOS ANGELES 1, CALIFORNIA

**Manufacturers of Heavy and Standard Duty Blowers for
Heating, Air Conditioning and Ventilating Installations.**

**Producers of Blowers and Blower Parts for
Original Equipment manufacturers.**

A DIVISION OF UTILITY APPLIANCE CORPORATION



YES SIR! I'M SAVING THIS PAGE! YOU JUST CAN'T BEAT **DURO-DYNE'S** QUALITY PRODUCTS FOR THE SHEET METAL FIELD!



DAMPER REGULATORS AND CONTROLS (Formerly manufactured by PARKER-KALON)

UNXLD DAMPER QUADRANT SET — $\frac{3}{4}$ " size used for dampers up to 20", $\frac{1}{2}$ " size for dampers up to 30". Provides positive control. Sturdily constructed, easily installed and adjusted.

HEAVY DUTY QUADRANTS — Regulate larger size dampers up to 60". The ball bearing quadrants are the finest manually operated, heavy duty units on the market. The plain bearing quadrant for larger regulators up to 52" has the same rugged construction except for the ball bearing feature. Sizes $\frac{5}{8}$ " to 1".

JIFFY REGULATOR SET — Installs more quickly since it does not have to be attached to the duct.

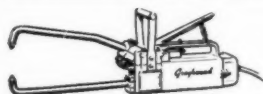
DIAL DAMPER REGULATOR SET — $\frac{1}{4}$ " size for dampers up to 10"; $\frac{3}{8}$ " size for dampers up to 20". Special construction prevents air leakage and damper rattle. Made of heavy gauge steel, cadmium plated.

METAL PUNCHES

(Formerly manufactured by PARKER-KALON)

The O.X. Metal Punch is only 8" long and weighs 2 $\frac{1}{2}$ lbs. It punches holes up to $\frac{1}{4}$ " diameter in 14-gauge steel or its equivalent. Handle and frame are of finest steel forgings; all moving parts are precision made of tool steel, individually hardened and tempered. Supplied with 7 standard punches and dies from 3/32" to 17/64".

The X.X. Metal Punch is both a bench punch and a hand punch. By releasing a pin in the bench stand it becomes a hand punch. The X.X. has an extra large throat dimension — 3" deep x 2 $\frac{1}{4}$ " high. Handle and frame are of finest steel forgings, all moving parts are precision made of tool steel, individually hardened and tempered. Capacity is $\frac{1}{4}$ " in 14-gauge metal or equivalent. Furnished complete with bench stand, gauge, stripper and one punch and die of any standard size, from 3/32" to 17/32" by 32nds.



GREYHOUND PORTABLE SPOT WELDER

The Greyhound Portable Spot Welder is a complete, self-contained unit that can be plugged into any outlet. It can be brought to the job. The Greyhound is ideal for air-conditioning and heating duct fabrication. Capacities to $\frac{1}{4}$ " combined thickness.



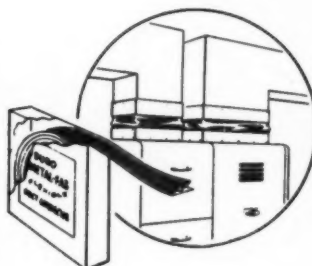
SHUR-GRIP FILE AND SOLDER IRON HANDLES (Formerly manufactured by PARKER-KALON)

Shur-Grip File Handles screw onto the file and won't loosen. They contain a die which automatically cuts its own thread on the tang. They speed filing, prevent injuries. Sizes for 3" to 18" files. Shur-Grip Solder Iron Handles available for 1 $\frac{1}{2}$ to 12-lb. irons.

DURO-METAL-FAB

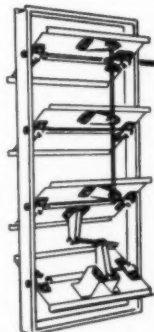
Flexible duct connectors for stopping travel of vibration noises are made up to three times faster when fabricated from preassembled Duro-Metal-Fab. Metal strips are already attached to fabric, eliminating this costly, time-consuming step in the shop. The Double-Loc Seam assures a tight, permanent connection between fabric and metal.

Metal is heavy gauge finest galvanized iron or aluminum. Fabric is U. L.-Approved canvas, heavy, tight weave asbestos or Neoprened Fiberglass. Supplied in continuous rolls containing 100 feet.



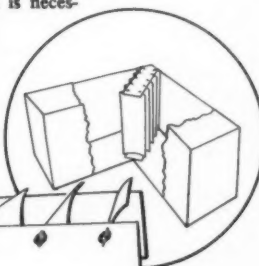
DURO BLADE KIT

Precision-built hardware for assembling multi-blade dampers. Reduces damper assembly time because of the uniformity of parts and the full adjustability which the kit provides. Damper blades are self-aligning, eliminating costly aligning procedures. Permits smooth, non-binding operation of dampers, even when a bracket is misplaced as much as $\frac{1}{4}$ ". Blade openings are individually adjustable; correct clearance between blade and damper is automatically provided. Approved for use on dampers for the major control manufacturers.



DURO-VANE-RAIL

Air turning vanes made with Duro-Vane-Rail save 50% to 70% in installed costs. Layout, drilling and riveting are eliminated. Vanes are sheared from scrap. No tab cutting on vanes is necessary. One blow on a chisel (supplied with each bundle of Duro-Vane-Rail) securely locks vanes to rail. Duro-Vane-Rail allows maximum free area; eliminates noise and "whistle." Completed assembly meets most engineering specifications.



Sold by leading jobbers throughout the country.
WRITE FOR COMPLETE CATALOG

DURO-DYNE Corporation

800-B Third Avenue, New Hyde Park, N. Y.

Always wonderful w



weather indoors!

(... and always wonderful "sales climate", too)

Mueller Climatrol

COOLING - HEATING

MUELLER Climatrol has everything it takes to get you more sales and profits, more satisfied customers: A complete line. A famous name. Advanced engineering. Quality construction. Smart styling.

Get the whole story at
International Heating Show
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Commercial Museum
Philadelphia

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D-177

MicroRold® Stainless Steel



"THINNESS CONTROL"

provides strip Quality in SHEET Sizes

Remarkable uniformity of gauge in MicroRold
Stainless Sheets up to 36" wide.

The "Thinness Control" used in the manufacture of light gauge MicroRold Stainless Sheets assures you of the *same* dimensional accuracy as in strip stainless. Specified gauge thicknesses may be rolled in sheet sizes with tolerances as low as 3% average (plus or minus) as compared to the A.I.S.I. allowable of plus or minus 10%. This results not only in weight savings but also in fabricating economies.

With "Thinness Control" MicroRold's close adherence to a specified gauge will naturally result in a longer die life. Not only is MicroRold held closely to the specified thickness, but the "crown", or extra thickness in the center, is less in MicroRold than the "crown" in sheets rolled by conventional practice.

Regular use of MicroRold Sheet can give you more stainless area per ton or the equivalent area with lesser weight.

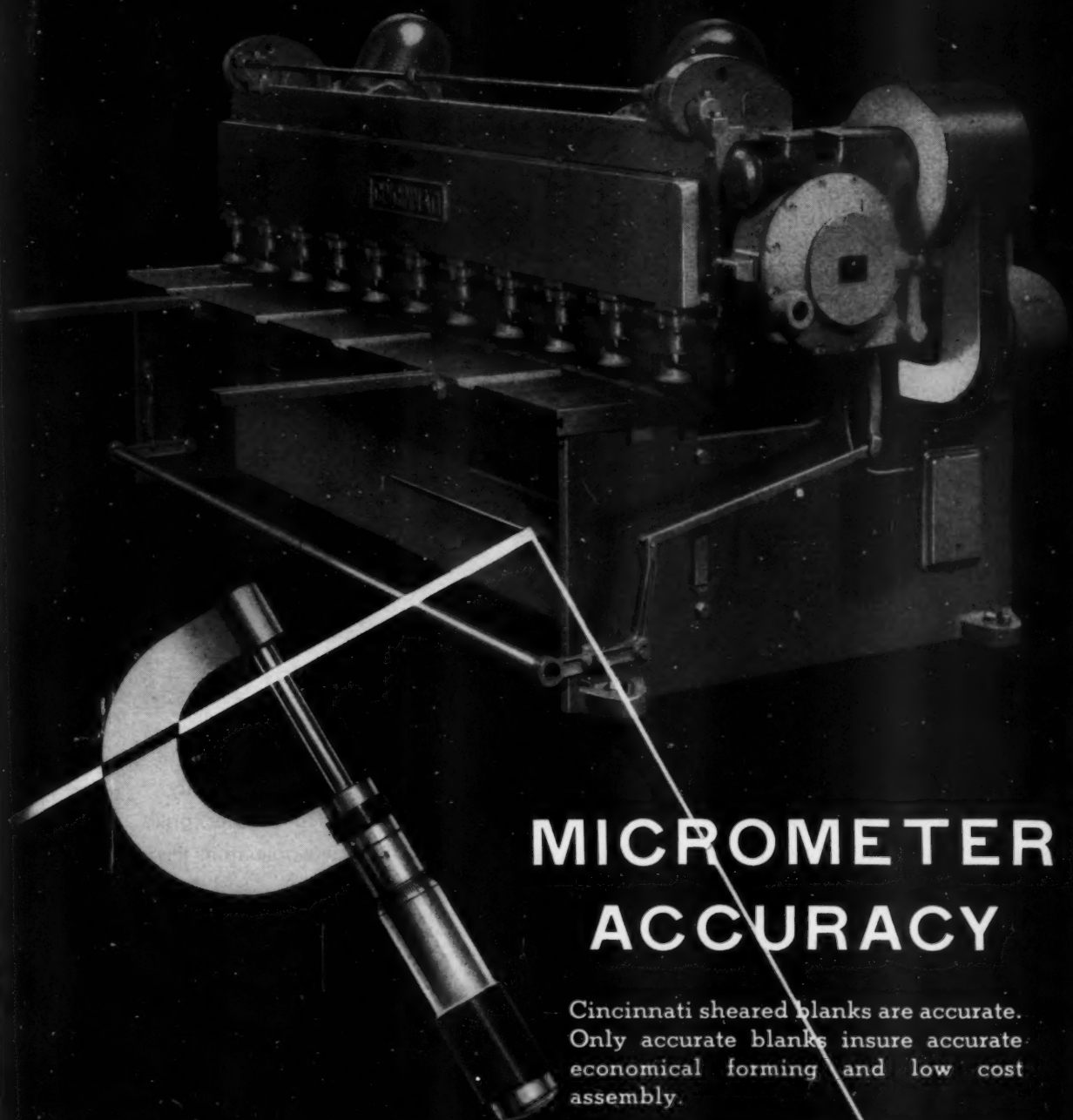
MicroRold Stainless Steel Sheets are available up to 36" wide and in gauges from .005 in commercial grades, finishes and temper.

Ask your steel warehouse distributor for
MicroRold with "Thinness Control"

== Washington Steel Corporation ==

Washington, Pennsylvania





MICROMETER ACCURACY

Cincinnati sheared blanks are accurate.
Only accurate blanks insure accurate
economical forming and low cost
assembly.

Write for Cincinnati Shear Catalog S-6.



THE CINCINNATI SHAPER CO.

CINCINNATI 25, OHIO, U.S.A.

SHAPERS • SHEARS • BRAKES



No. 74 The low-cost, **QUALITY** air conditioning register



No. 75 Only air conditioning register with the **TURNING BLADE VALVE**



No. 76 Fin type face, Air Conditioning Register with multi-shutter valve — very popular

OVER 275,000 SQ. FT. OF FLOOR SPACE . . . THE MOST MODERN EQUIPMENT AVAILABLE AND OVER 55 YEARS OF KNOW-HOW ARE DEVOTED ENTIRELY TO MAKING

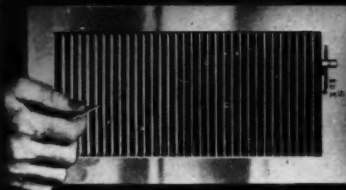


Your Preferred Source
OF REGISTERS, GRILLES & DIFFUSERS!

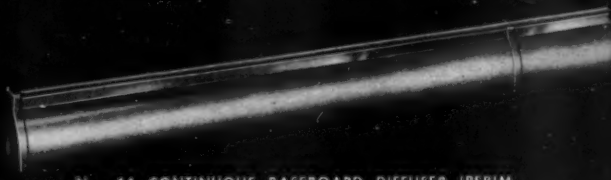
. . . and once you have become an H & C customer we are confident you, like thousands of others, will feel that it is more convenient, more profitable and more satisfactory in every way to deal with H & C. **MORE CONVENIENT** because the ideal register, grille or diffuser for each and every type of installation is available from this **ONE** reliable source. And each item is packaged individually and cartoned in lots best suited to your convenience in handling and storing. **MORE PROFITABLE** because each item is the very finest of its type in both efficiency and quality construction — the kind that serves to arouse enthusiasm and gain new customers. **MORE SATISFACTORY** in every way, including service which prides itself on providing wholehearted cooperation on every order, large or small, and very prompt shipment of practically all standard items. Give us a whirl, we believe you'll like us.

See the line at the **INTERNATIONAL HEATING & VENTILATING EXPOSITION** in Philadelphia — **BOOTH 610**

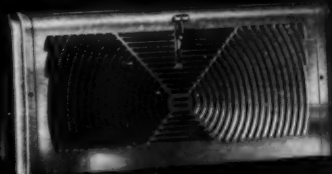
PRODUCT OF THE WORLD'S LARGEST and MOST



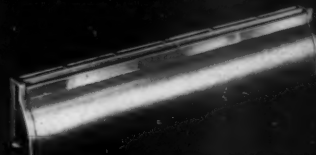
No. 88 Adjustable bar type, Air Conditioning Register with multi-shutter valve. Sizes up to 30" x 24".



No. 44 CONTINUOUS BASEBOARD DIFFUSER (PERIMETER) Requires no tools to assemble or disassemble. Installed in multiples of 2" and 4". Balancing damper available.



No. 405 BASEBOARD DIFFUSER (PERIMETER) Has floor opening, damper adjustment for balancing.



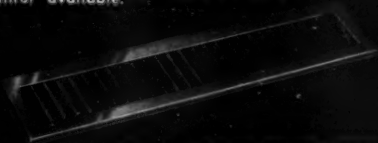
No. 452 HIGH CAPACITY BASEBOARD DIFFUSER (PERIMETER) Blankets wall of average room. Balancing damper available.



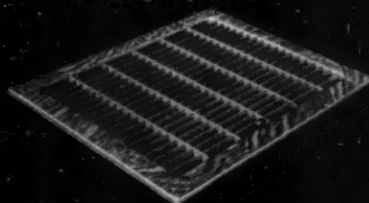
CEILING DIFFUSER Made in 5 popular sizes. Butterfly damper with balancing control available.



No. 401 SIDEWALL DIFFUSER (PERIMETER) Blankets wall of average room. Has volume control valve.



No. 411 FLOOR DIFFUSER (PERIMETER) Has opposed louvers for perfect air pattern. Positive balancing adjustment.



No. 210 "NO-FLEX" floor register. Sturdy grid type. Matching COLD AIR RETURN is No. 265.



No. 130 Tops for gravity or conversion installations. No. 330 companion sidewall register.

HART & COOLEY MANUFACTURING CO.

200 EAST DAVENPORT ST. TORONTO, ONTARIO
 IN CANADA: HART & COOLEY MANUFACTURING CO., PORT HURON, ONTARIO

PROGRESSIVE PRODUCERS OF REGISTERS and GRILLES

SPARK YOUR SALES

with Richmond's complete



featuring
the four
"Budgeteers"

"Top Quality Heating
at Budget Prices"



Budgeteer Series

Type LG-16 Winter Air Conditioner
Steel, Gas-Fired, Low-Boy

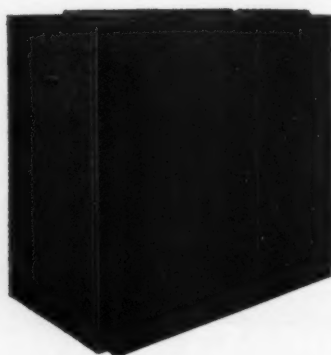
Capacities—70,000, 90,000, 110,000 BTU/hr. Input
Only 42" high for ease of installation in any type
basement or partial-basement home. Low height
makes it particularly suitable for split-level homes.
Available in oil-fired models, type LO-61.



Central Cooling Unit

Capacities—Type RA Air-cooled—
2 and 3 tons

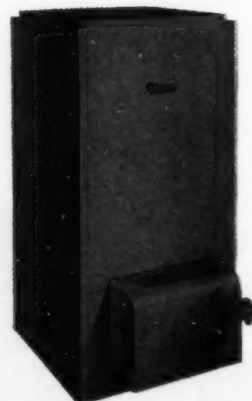
Type RW Water-cooled—2, 3 and 5 tons
Every unit chart tested under A.S.R.E.
conditions for trouble-free field
operation. Exclusive design uses motor
with lower horsepower rating to cut
operation costs up to 20%.



"Suburbanite"

SH-G Winter Air Conditioner
Steel, Gas-Fired, Low-Boy

Capacities—85,000, 110,000, 140,000,
175,000, 220,000 BTU/hr. Input
Quality unit for automatic, quick, clean,
comfortable heat. Attractive casing looks good
in finished basement or recreation room.
Oil-fired model, SH-P, available in five sizes.



SG Gravity Furnace Steel, Gas-Fired

Capacities—70,000, 90,000 BTU/hr. Input
A well-built unit for economy homes that
provides automatic heating at lowest
cost. Finest quality controls; simplified
control set-ups; large, durable heating
element; large combustion chamber;
welded construction.

S DRIVE IN '55

ce automatic line

low-boy • high-boy • counterflow
horizontal • gravity • steel and cast iron
heating and cooling units



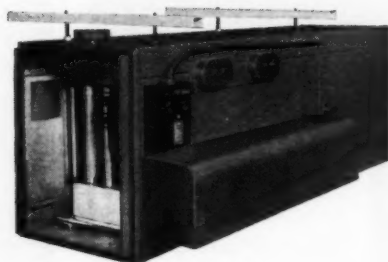
Budgeteer Series

Type VG-36 Winter Air Conditioner
Steel, Gas-Fired, High-Boy

Capacities—70,000, 90,000, 110,000
BTU/hr. Input

A.G.A. approved for 1" clearance. Ideal
for closet or alcove installation.

Available in oil-fired models, type VO-71.



Budgeteer Series

Type SA Winter Air Conditioner
Steel, Gas-Fired, Horizontal-Suspended

Capacities—60,000, 80,000, 100,000,
120,000, 140,000 BTU/hr. Input

Shipped completely assembled with controls,
including thermostat for easy, quick installation
in attic space, crawl space or
suspended in a basement or utility room.



Budgeteer Series

Type CG-46 Winter Air Conditioner
Steel, Gas-Fired, Counterflow

Capacities—70,000, 90,000, 110,000
BTU/hr. Input

For basementless type homes... popular
for perimeter heat systems.

Available in oil-fired models, type CO-81.



GHA Winter Air Conditioner
Cast Iron, Gas-Fired, Low-Boy

Capacities—Single units—75,000 to
175,000 BTU/hr. Input

"Twin units"—200,000 to 300,000 BTU/hr. Input

Deluxe basement type heating unit for any size
home. Twin units are covered in a single
casing and operated by one set of controls.



All Richmond
furnace casings
"Duridized"
for superior
bond and finish.

*Duridine—
American
Chemical
Paint
Company.

free bulletins available

Descriptive literature covering basic technical
details, rough-in dimensions, etc., is available in
bulletin form for each of these units. For copies,
use the handy coupon or write.

RICHMOND

Richmond Radiator Company

16 Pearl Street, Woburn, Mass. 01801

Please send me descriptive literature on the following Richmond
units that I have checked.

☐ LG Budgeteer ☐ CG Budgeteer ☐ SH ☐ GHA
☐ SA Budgeteer ☐ VG Budgeteer ☐ SG ☐ RA

NAME _____

COMPANY _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

We are ☐ wholesalers ☐ contractors.

AA-1

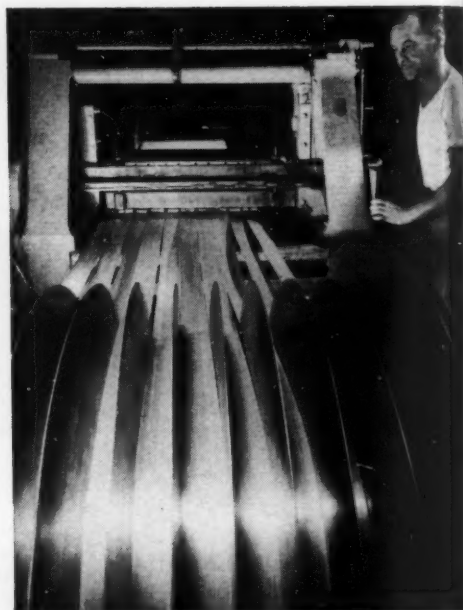
Van Huffel Tube Corporation selects

USS Galvanized Steel Sheets for



1

Coils of USS GALVANIZED STEEL SHEETS in multiple widths—as delivered to Van Huffel—ready to start their trip through some of the toughest forming operations imaginable.



2

Here USS GALVANIZED STEEL SHEETS pass through the first step of process. They're being slit into the proper widths for the sections into which they'll be formed.

First Stand. Strips of USS GALVANIZED STEEL SHEET pass into first stand of the cold-forming operation. The cold-forming machines consist of a series of roll stands

3

—each with a special set of roller dies—through which strip is passed.



S for severe and intricate forming operations

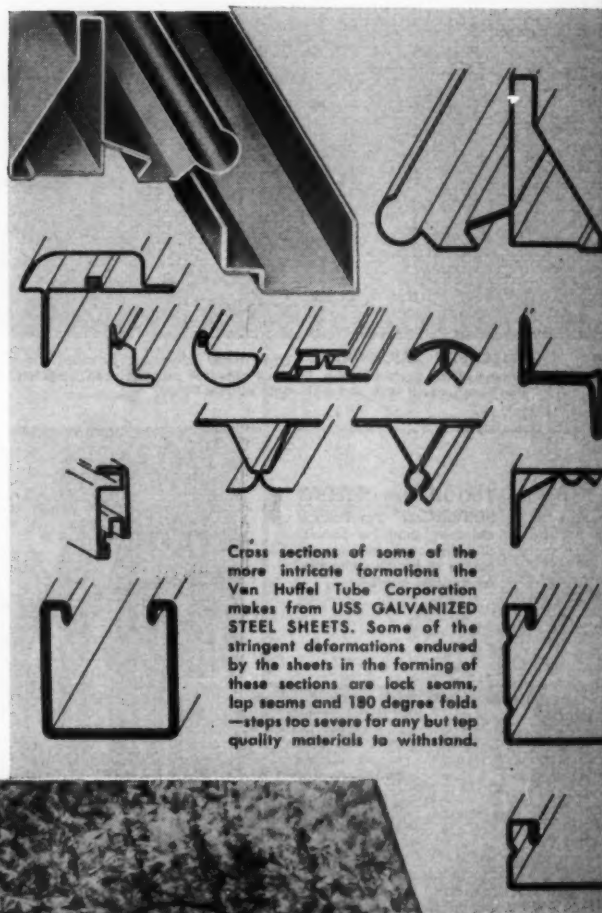
THE SLOGAN of this leading Warren, Ohio, manufacturer is: "Van Huffel—where ideas take shape—in metal." And, in manufacturing over 6000 different cold-formed shapes and tubing sizes, Van Huffel is really living up to its reputation. Because many of these shapes and tubes are of very complicated and severe design, it is imperative that they be formed from only top quality steel! That's why United States Steel is proud to be a supplier to Van Huffel Tube.

USS Galvanized Steel Sheets have outstanding qualities which make them especially valuable to Van Huffel, and to you. They have a tight, uniform zinc coating that will not flake or chip even under this severe bending or folding. They draw smoothly and evenly. And USS Galvanized Steel Sheets are uniform in gage, assuring a sound finished product. These qualities are of vital and equal importance in the difficult forming operations for which Van Huffel Tube is justly famous.

Perhaps there's a place in *your* operation for USS Galvanized Steel Sheets? If there is, take advantage of all the benefits of USS Galvanized Steel Sheets. For more information, ask your sheet distributor or our nearest district office. United States Steel Corporation, 525 William Penn Place, Pittsburgh 30, Pa.

UNITED STATES STEEL CORPORATION, PITTSBURGH
COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO
TENNESSEE COAL & IRON DIVISION, FAIRFIELD, ALA.

UNITED STATES STEEL SUPPLY DIVISION, WAREHOUSE DISTRIBUTORS, COAST-TO-COAST
UNITED STATES STEEL EXPORT COMPANY, NEW YORK



Cross sections of some of the more intricate formations the Van Huffel Tube Corporation makes from USS GALVANIZED STEEL SHEETS. Some of the stringent deformations endured by the sheets in the forming of these sections are lock seams, lap seams and 180 degree folds—steps too severe for any but top quality materials to withstand.

Last Stand. Finished formed section emerges from last stand of operation, ready to be sheared to length and shipped. From the time the flat strip is fed into the first roll until the section is finished, the galvanized sheet undergoes a series of progressive deformations in the intermediate roll stands.

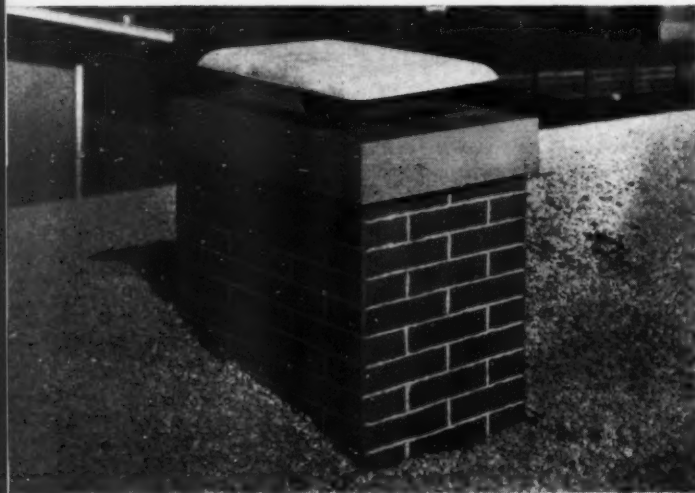
4



USS GALVANIZED STEEL SHEETS

UNITED STATES STEEL

Profit on both heating plant and m



EMBOSSED BRICK-PANEL Van-Packer chimney housing adds beauty to homes in all price classes. Cement-asbestos panels have brick texture and are deep-embossed with natural color mortar lines.

**FLOOR OR CEILING
SUSPENDED** Van-Packer chimney may be placed directly over furnace in center of house as easily as against a wall.



ALL PARTS PACKAGED. All materials for complete installation are provided in the packages — even flashing and acid-proof, leak-proof joint cement.



Sell, install and profit on the entire heating installation with the Van-Packer Packaged Masonry Chimney

DOUBLE PROFIT — By selling and installing the Van-Packer chimney with your regular line of heating equipment you make money on both components of the heating installation instead of just one. You cut out costly job-delays and call-backs because you put in the entire installation. You're sure it's done right, because you do it from start to finish.

QUICKLY INSTALLED — Complete chimney assembled in 3 man-hours or less. No special skills required. Easily installed, even after house has been completed. Complete packaged chimney delivered to job when needed, nothing else to provide. Construction delays eliminated.

APPROVED FOR ALL FUELS — The Van-Packer chimney is the only masonry chimney tested and listed by U. L. for all fuels — coal, oil or gas — with all home heating plants and incinerators. It is approved by major building codes. Flue sections are made of 2100° F. acid-proof fire clay tile lining, 3" vermiculite concrete insulating wall and cement-asbestos outer jacket. Insulating value equals 24" brick construction. 14" OD flue section installs between joists on 16" centers without joist cutting.

EFFICIENT, PERMANENT — In independent laboratory tests, the Van-Packer chimney developed 34% more draft than 8" x 12" tile-lined brick chimneys. The Van-Packer is a lifetime masonry chimney.

FREEDOM OF DESIGN — Due to its sectional construction of light-weight vermiculite concrete, the Van-Packer chimney may be suspended directly over furnace where it best serves heating plant location. Conserves floor space as no chimney foundation is necessary.

LOW COST — Saves 20% to 40% on cost of time and material over brick chimney construction.

IMMEDIATE DELIVERY — Distributed in the United States, Canada and Alaska through local heating and building material jobbers. See ordering instructions on next page.

ONE MAN INSTALLS A VAN-PACKER CHIMNEY IN 3 HOURS OR LESS



Prepare opening in floor, ceiling and roof. No clearance to wood members necessary.



Place chimney support in prepared opening and nail iron supporting straps to floor joists.



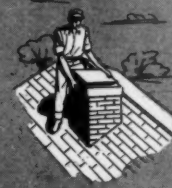
Cement masonry sections in place up to desired height using thermal-setting joint cement provided.



Assemble leak-proof flashing on roof at base of flue. Install housing around completed flue.



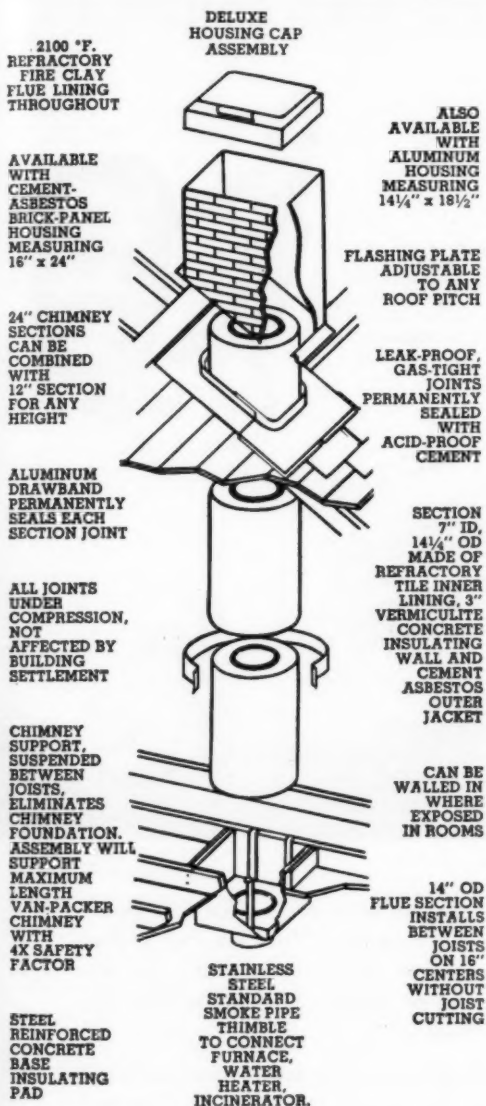
Cut housing panels to desired pitch and slide them together to form locked housing.



Set "Deluxe Housing Cap" assembly over housing to complete Van-Packer chimney installation.

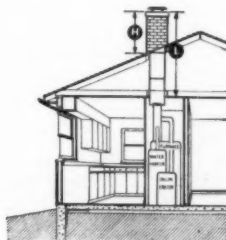
masonry chimney . . . sell Van-Packer

CEILING SUSPENDED INSTALLATION METHOD



INSTALLATIONS FOR EVERY HOME — FOR EVERY FUEL

CEILING SUSPENDED



One or Two Story
No Basement

FLOOR SUSPENDED



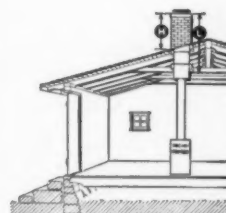
One or Two Story
with Basement

PIER FOUNDATION SUPPORTED



One or Two Story
with Basement

CEILING SUSPENDED



Cabin, Garage
or Farm Building

HOW TO ORDER VAN-PACKER CHIMNEYS

For specific prices, simply give your heating supply or building material dealer or jobber the "H" and "L", or "H" and "P" measurements as indicated in the diagrams above. See your local classified telephone directory under "Chimneys" for Van-Packer listing. If no distributor is listed, write Van-Packer Corp.

COMPLETE INSTALLATION INFORMATION AVAILABLE

If the chimney installation you require is not shown here, send an elevation drawing showing roof pitch and chimney location to Van-Packer Corp. Complete installation information will be sent you immediately.

Write for Bulletin No. AF28-11

PACKAGED MASONRY CHIMNEY WITH BRICK-PANEL HOUSING

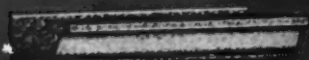
VP Van-Packer

Van-Packer Corporation • Bettendorf, Iowa • Phone: Davenport 5-2621

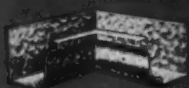


"I recommend *MILCOR Gutter,
because I value my reputation!"**

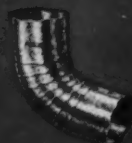
Sizes and styles —
with matching
accessories — for
every requirement



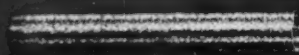
Style "K" Gutter



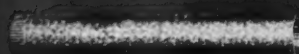
Style "K" Millie



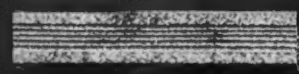
Elbows



Corrugated Round Conductor Pipe



Plain Round Conductor Pipe



Square Conductor Pipe

— says George Lang,

whose Lang Sheet Metal Co.,
Kansas City, Kan., has long
been known for quality
sheet metal installations.



THERE'S a good reason why so many sheet metal men prefer Milcor galvanized Gutter and Conductor Pipe. They've worked with all kinds. They know from experience that they can rely on the uniform good quality of Milcor. They know their customers will not be disappointed.

The strength of steel is important in gutter installations — strength to hold up under the ladders during construction and for many years after. Besides, Milcor galvanized steel gutter is easy to install and always makes a good looking job.

Use Milcor Gutter and Conductor on all *your* jobs. Order your requirements now. Get prices from the nearest branch listed below, or from your jobber.

INLAND STEEL PRODUCTS COMPANY

4023 WEST BURNHAM STREET • MILWAUKEE 1, WISCONSIN

BALTIMORE 5, MD., 5300 Pulaski Highway • BUFFALO 11, N. Y., 64 Rapp St. • CHICAGO 9, ILL., 4301 S. Western Blvd. • CINCINNATI 25, OHIO, 3240 Spring Grove Ave. • CLEVELAND 14, OHIO, 1541 E. 38th St. • DETROIT 2, MICH., 690 Amsterdam Ave. • KANSAS CITY 4, MO., P. O. Box 918 • LOS ANGELES 58, CALIF., 4807 E. 49th St. • NEW YORK 17, N. Y., 230 Park Ave. • ST. LOUIS 10, MO., 4215 Clay St.

Short Course Committee Schedules Four-Day Schools

THAT THE warm air heating dealer, his salesmen, installers and shop men might keep up-to-date on the latest trends in the warm air heating industry, four-day short courses are conducted annually at some of the leading colleges located in various parts of the country.

The courses are jointly conducted by the colleges and members of the Short Course Committee of the National Warm Air Heating and Air Conditioning Association. Bruce McLouth, chairman of the Short Course Committee, has announced the following outlines of the four-day programs:

First Morning
9:00 Registration
10:15 Welcoming address and introductions
10:30 Purpose and objectives of short course
11:15 Review of classroom problems
11:45 Lunch

First Afternoon
1:15 — 5:00 Classes
6:00 Dinner; evening open to school committee

Second Morning
8:00 — 11:45 Classes
Second Afternoon
1:15 — 5:00 Classes
6:00 Banquet (speaker, entertainment)

Third Morning
8:00 — 11:45 Classes
Third Afternoon
1:15 — 5:00 Classes
6:00 Dinner; general discussion panel

Fourth Morning
8:00 — 11:45 Classes
12:00 Luncheon (speaker, presentation of certificates)
2:00 Conference closes

The dates for the courses:
Oklahoma A & M College, Feb. 14-17.
Purdue University, Mar. 9-12.
Michigan State College, Mar. 28-31.
Iowa State College, Apr. 18-21.
Penn State University, Apr. 6-8.
The committee plans to furnish each student with a complete set of all of the manuals published by NWAHACA in a ring binder.

BDSA Holds Conference For Building Industries

THE BUSINESS and Defense Services Administration, U. S. Department of Commerce, reported progress in developing more reliable statistics for the construction industries in a recent conference attended by 34 representatives of building material and construction companies and their trade associations. Industry spokesmen declared, however, that it is vital to future activities in the construction field to obtain more detailed and accurate information as a means of stabilization and to prevent overbuilding in some areas. It was pointed out that only the government can collect the kind of information needed by the construction industries.

Among the industry and association representatives attending the conference were: William Gillett,

Detroit Steel Products Co.; J. W. Greene, Crane Co.; Thomas Hannah, American Radiator & Standard Sanitary Corp.; George B. Moore, H. H. Robertson Co.; A. H. Williams, Reynolds Metals Co.; and Bert L. Wood, American Iron & Steel Institute.

Wolf's Illness Forces Retirement from AGA

H. CARL WOLF, managing director of the American Gas Association since 1945, is retiring from his position as active head of the association's staff, due to continued illness. He will be available to the association in the capacity of consultant as circumstances require. John W. West, Jr., who has been acting managing director since June, 1954, will continue in that capacity until the matter of a permanent appointment has been finally determined.

Big Majority Vote For ASHVE Name Change

EFFECTIVE November 22, 1954, the name of the American Society of Heating and Ventilating Engineers was changed to American Society of Heating and Air-Conditioning Engineers, Inc. A total of 4081 votes were cast, 3280 of which were in favor of the new name, 654 opposed and 147 invalid. President L. N. Hunter emphasized that under its new name the membership will continue to advance the arts and sciences related to heating, air conditioning, ventilating and cooling.

Sees New High Level For Construction

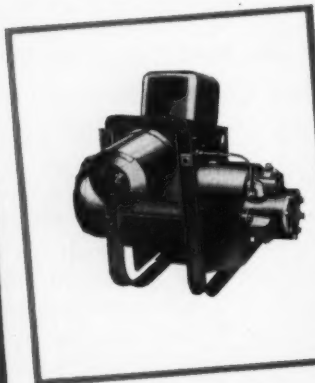
THE 1955 level of construction activity will set another new all-time high record in dollar volume, in the opinion of Thomas S. Holden, vice chairman of F. W. Dodge Corp. For residential building, Mr. Holden predicts an approximate four percent increase in new non-farm dwelling units. "Nearly all such increase as will take place will be single-family houses," he said. "It seems possible that the indicated rate of increase may be exceeded in the first half of 1955 and that in such case there might be a moderate slowdown later in the year."

Mr. Holden's statement on construction activity was prepared in collaboration with two of his staff, Clyde Shute, statistical specialist, and Dr. George Cline Smith, economist. In formulating the estimates they were aided by a poll they made of the opinions among 186 leading economists in industry, finance, and the universities. The majority of the economists polled indicated they expect a moderate improvement in business activity in general. More than three fourths of those replying expect total activity, measured by gross national product to be higher than the current rate in each quarter of 1955.

(Other news on page 36)

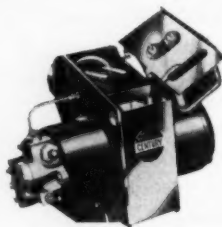
NEW FAR ADVANCED CENTURY

OIL BURNER ... after 28 years
of leadership in oil burner development



- Burns All Fuels Efficiently — cat cracked and standard domestic oils of all types burn with equal efficiency at any firing rate.
- Standard components are used throughout — with outstanding features for long, trouble-free life.

- One Basic Unit — by a simple change in nose pieces, nozzles and manifolds, a complete range from .65 to 3.5 G.P.H. is obtained. Another feature exclusive with Century.
- All Steel Stampings — firmly welded in precision fixturing equipment for perfect alignment. Reduces weight, misalignment, shipping damage typical of ordinary cast housings.
- Completely accessible — for quick and easy servicing.



Century kept both the dealer and consumer in mind in designing this remarkable new oil burner. It gives you the very worthwhile advantages of easy servicing, standard component parts throughout, one basic unit adaptable to many needs, and the complete elimination of misalignment and shipping damage problems. It gives your customer a new standard of efficient performance—a quieter flame, a cleaner fire, high combustion efficiency coupled with low maintenance cost.

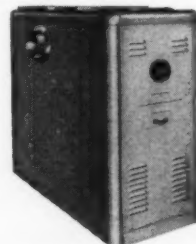
In addition to its use for conversion, the new Century Oil Burner has complete flexibility. For example: both integral and universal adjustable flanges are available for mounting directly to the heating plant. Truly a revolutionary advance — get complete information on this new oil burner now! Mail coupon on opposite page today.



COUNTERFLOW UNITS
gas and oil



PREASSEMBLED MODELS
gas and oil, lobby and hiboy



COMMERCIAL UNITS
oil, lobby and hiboy



SUMMER COOLING UNITS



It will pay you to inquire
about the **CENTURY LINE**

MAIL THIS COUPON TODAY

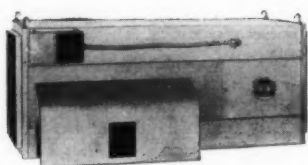
CENTURY

The heating and cooling line that's on the move

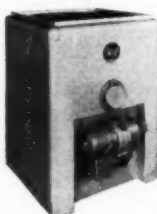
65 Sizes and types, gas and oil, heating and cooling

with features like these . . . important to you and your customers

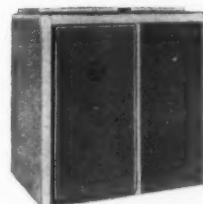
- Century has customer acceptance . . . through year-round consumer advertising. Makes sales easy . . . your profits big.
- Smart, modern, functional design. Round-cornered cabinet beauty.
- No service problems. Century is famous for really trouble-free operation.
- Fuel-saving "Crescent" radiator design. Three heating surfaces instead of the usual one.
- Century furnaces are readily available through jobbers from coast to coast.



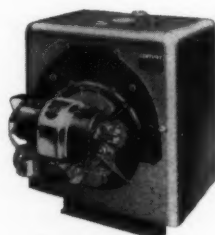
HORIZONTALS
gas and oil



GRAVITY UNITS
oil and gas



WINTER AIR CONDITIONERS
gas and oil, lobby and hiboy



**MIDGET BOILER AND
WATER HEATER** — oil



**AUTOMATIC AIR
PURIFIER-HUMIDIFIER**



CONVERSION GAS BURNERS

**Century Engineering
Corporation**
Cedar Rapids, Iowa
Gentlemen:
Send me complete information
on the Century heating
and cooling line.

Name

Address

City

State

CENTURY leading manufacturer of heating equipment for over 28 years

WHAT'S HAPPENING

(Continued from page 33)

NWAHACA Completes Plans for 1955 Indoor Comfort Conferences

PLANS FOR the 1955 Indoor Comfort Schools (two-day heating and cooling conferences sponsored by the National Warm Air Heating and Air Conditioning Association) have now been completed. Particular emphasis will be placed this year on the subject of summer cooling, with discussions scheduled to cover heat gain calculations, the problem of condensation on slabs and in crawl spaces and the transmission of operational noise

from the equipment. Also discussed will be 4, 5 and 6 in. round duct heating systems and the designing of these systems so they will be adequate in the event that summer cooling is added later. Additional information and advance registration cards can be obtained by writing to the Indoor Comfort Conference in your area. Tuition fees will be \$17.50 per student. Schools scheduled are as follows:

<i>When</i>	<i>Where</i>	<i>Chairman</i>
Kansas City	Jan. 17-18	P. C. Leffel, 3323 Main St., Kansas City, Mo.
Detroit	Jan. 27-28	E. Simmons, 14286 Meyers Rd., Detroit 27.
Kalamazoo	Jan. 31-Feb. 1	G. W. Rynbrand, 2107 Schippers Lane, Kalamazoo, Mich.
Peoria	Feb. 3-4	F. Mehrings, 107 Cass St., Peoria, Ill.
Boston	Feb. 10-11	W. H. Bowe, Jr., 352 C St. S., Boston 27
Durham	Feb. 14-15	H. L. Godwin, 806 Ramseur St., Durham, N. C.
Knoxville	Feb. 17-18	W. A. Simpson, 906 Sevier Ave., S. E., Knoxville, Tenn.
St. Louis	Feb. 21-22	C. S. Franke, 1300 Hampton Ave., St. Louis 10.
Binghamton	Mar. 3-4	F. Meir, 1 Lewis St., Binghamton, N. Y.
Philadelphia	Mar. 7-8	J. E. Phillips, 19th & Washington Ave., Philadelphia 46.
Harrisburg	Mar. 10-11	L. N. Yost, 4300 Paxton St., Harrisburg, Pa.
Saginaw	Mar. 14-15	C. L. Schartow, 200 Haley St. at Larkin, Midland, Mich.
Albuquerque	Mar. 30-31	J. H. Smith, 612 N. First St., Albuquerque
Omaha	Apr. 4-5	L. C. Norton, 1201 Dodge St., Omaha 8.
Davenport	Apr. 7-8	E. Adolphi, Federal & Charlotte Sts., Davenport, Ia.
Madison	Apr. 11-12	C. W. Vaughn, 1806 South Park St., Madison 5, Wis.
Duluth	Apr. 14-15	J. P. Nelson, 309-49 S. 5th Ave., W., Duluth, Minn.
Fargo	Apr. 18-19	R. E. Hartke, 92 Northern Pacific Ave., Fargo, N. D.
Hartford	Apr. 28-29	C. W. Thomas, 133 Laurel St., Hartford 6, Conn.

10 Month Steel Payroll At Second Highest Peak

THE ESTIMATED total payroll of the iron and steel industry during October — at \$244,698,000 — was the highest for any month since March, according to the American Iron and Steel Institute. The estimated payroll for the first 10 months of 1954, amounting to \$2,393,266,000, was

the second highest in history for that period, exceeded only in 1953.

The institute reports that shipments of finished steel products increased to 5,035,000 net tons in October, the highest monthly total since June. This brought the total shipments for the first 10 months of 1954 to 52,485,000 tons, compared with 68,599,000 tons in the first 10 months of 1953.

Ohio Gas Heating Restrictions Lifted

THE PUBLIC UTILITIES Commission of Ohio has lifted all residential gas heating restrictions for the Toledo Edison Co. and the Bryan Div., Ohio Gas Co. Ohio Gas said it has applications on file for 300 home gas heating units. Toledo Edison said it has 450 such applications but expects only about 350 installations to be made.

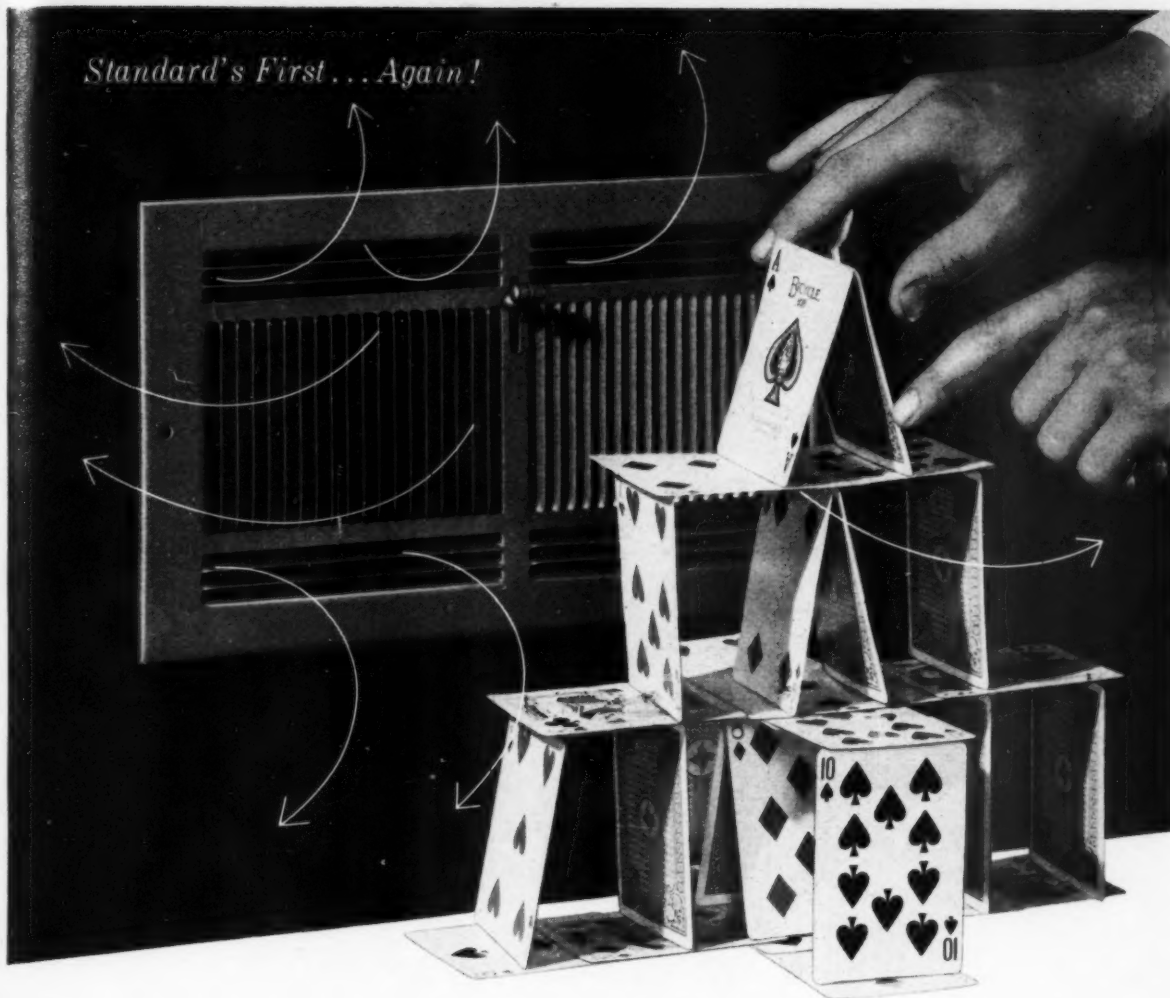
Establish New Standard For Wiring Adequacy


ANTICIPATION of extraordinary new levels of lighting and appliance use in American homes has moved an electrical industry committee on interior wiring design to raise its 1955 standard for adequate wiring to a minimum of 100 amperes for the service entrance capacity. This new standard, making 24,000 watts and 240 volts as well as 120 volt service available to the average householder, will aid in solving some of the problems encountered when installing summer cooling equipment and year 'round air conditioning systems.

FHA Issues Revision of Heating Requirements

MINIMUM Property Requirement Revision No. 51 issued by the Federal Housing Administration lists heating requirements for properties of one or two living units applicable in all insuring office areas except Honolulu and San Juan. Sections 500-510 covering general requirements, heat loss calculations, capacity of heating equipment, firing equipment and warm air systems supersedes sections 500-503 C and Appendix E of the Minimum Property Requirements. Section 520 — domestic water heating and storage — supersedes section 502 of the Minimum Property Requirements and/or MPR Revision No. 44 dated July, 1953.

Standard's First... Again!



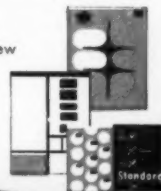
there's no trick  to it!

*if you use **Standard's No. 551**...no blasts, no hot spots, no cold corners!*

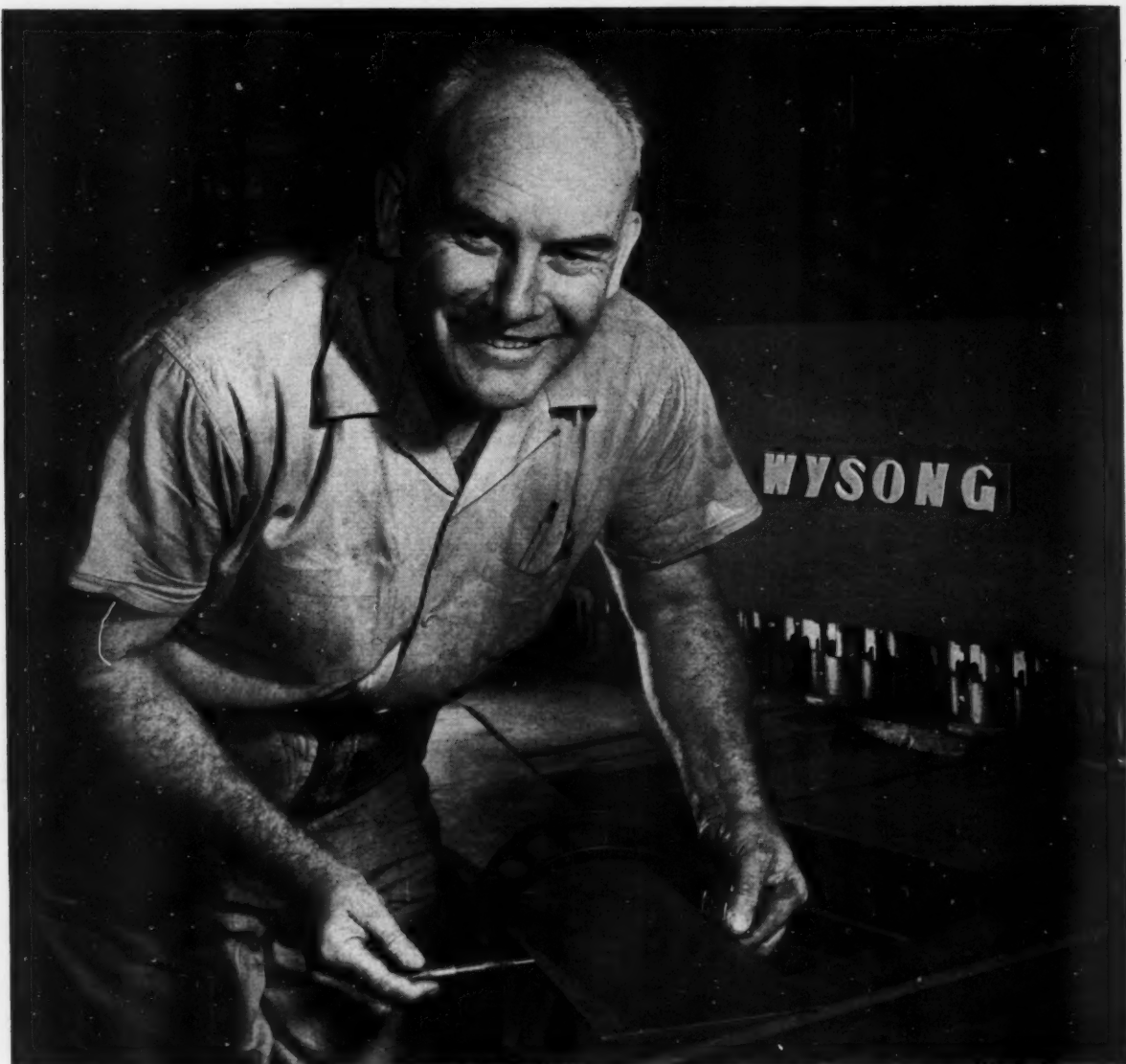
Standard's Perimeter Wall Register (No. 551) ends hot air blast and spotty heating for all time. Its 4-way, 360° diffusion of air provides complete hemispheric heating and cooling comfort. Warm air is distributed evenly along the outer cold walls, resulting in uniform temperature control throughout each room.

- NEW FRACTIONATOR VOLUME CONTROL • STANDARD SCREW HOLES • SINGLE SHUTTER CONTROL
- SMART APPEARANCE • FOR SIDEWALL OR BASEBOARD INSTALLATION
- ACCLAIMED BY THOUSANDS OF HOME AND COMMERCIAL BUILDING OWNERS

WRITE NOW! See for yourself why the Standard 551 is the best perimeter wall register on the market! Mail the coupon for copies of testimonials and case histories of people who are enjoying real indoor comfort with Standard's new 551 Registers. We'll rush them to you free, along with descriptive literature.



MAIL TO: STANDARD STAMPING & PERFORATING CO.
 301 FARMER WALL REGISTER
 CHICAGO 22, ILLINOIS
 NAME _____
 ADDRESS _____
 CITY _____
 STATE _____
 ZIP _____



SHEAR SATISFACTION!

When you use a Wysong, you will know what I mean—a clean, *accurate* cut and complete confidence that the next cut will be just like it.

Wysong Shears are designed and built for that kind of shearing — rugged enough to withstand the shock of capacity shearing, rigid enough to maintain accurate alignment.

You will want to know about the rigid, hi-tensile castings; the drive unit which runs in oil; the non-repeat unit; the positive, compensating holddown; the ball-bearing precision back gauge; and other superior Wysong features. They add up to **SHEAR SATISFACTION**—for the boss and the operator, too.

Before you buy, investigate **WYSONG** ... it's **MILES** ahead! See your dealer or write factory for new catalog.

WYSONG

WYSONG AND MILES COMPANY • GREENSBORO, NORTH CAROLINA

Builders of Precision Machines For Over Fifty Years.

doing
more
for you
in
cooling,
too



Honeywell

doing
for you
cooling.



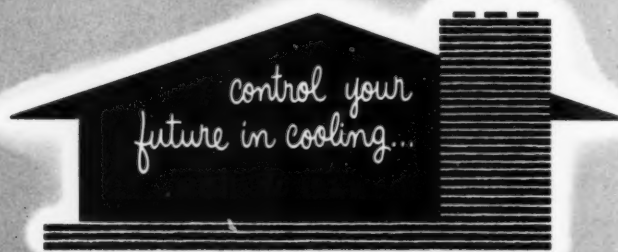
Hottest item in residential comfort

No question about it, residential cooling is hot. It's been coming fast, but there's still knowledge and experience to be gained, problems to be licked. You'll find, however, that Honeywell's extensive research and experience is keeping pace. More important, it's at your doorstep in the form of your nearby Honeywell representative and in the comprehensive training programs Honeywell has prepared for your installers and servicemen.



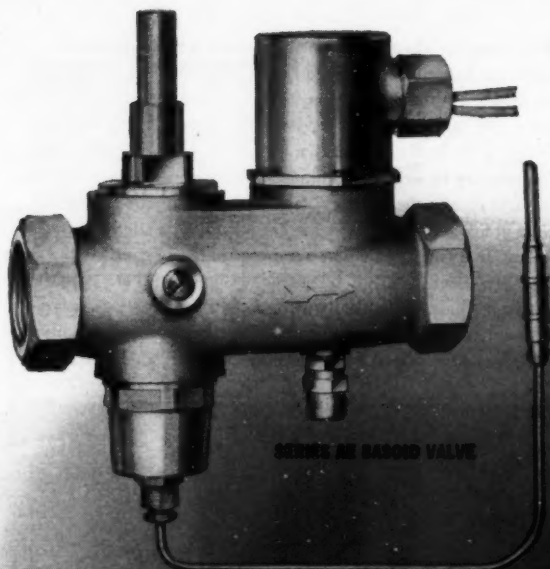
MINNEAPOLIS
Honeywell

First in Cooling Controls

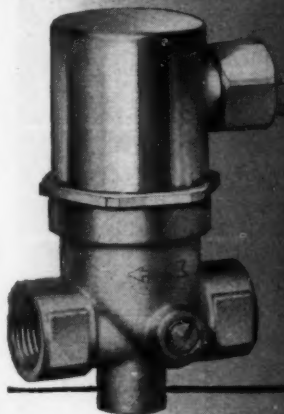


SERIES

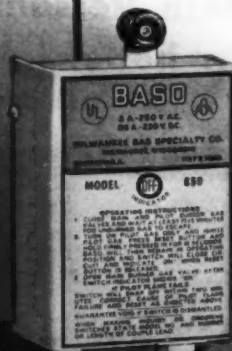
AMERICAN



SERIES EA SOLENOID VALVE



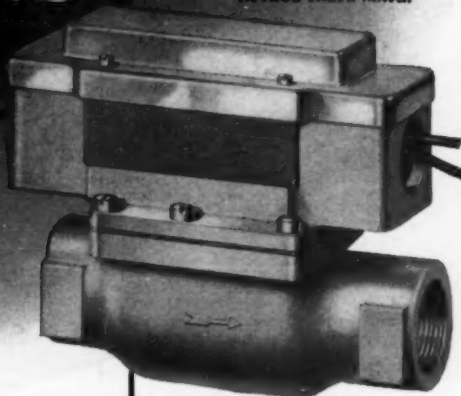
CONTROLS FOR AUTOMATIC GAS FIRING



NO. 850 BASO SWITCH



ACTROL VALVE MASGI



Look at this line up of controls for automatic operation of your gas appliances.

The Actrol® valve, quiet, stronger to open against gas pressure, with built-in transformer—

The Basoid® valve, space-saving and self-sufficient because it combines in one body a solenoid valve and the Baso automatic pilot, standard of an industry—

The MGSCo Solenoid valve with stainless steel and aluminum parts to resist corrosion of sour gas—

The No. 850 Baso® automatic pilot switch which monitors the operation of the Actrol, Basoid, and Solenoid valves—

In these you can find the combination best suited to give you the years of reliable, service-free operation you want for any type of automatic gas appliances.

There's lots more to this story. Drop a card to us; we'll see that you get it.

MILWAUKEE GAS SPECIALTY CO.

Dept. SA-3
MILWAUKEE 1, WISCONSIN





UNI-FLO
ENGINEERED

Air Distribution

... modern, versatile
... for better jobs

What happens when conditioned air enters a room marks the difference between success and failure of a complete job. If there are drafts, uneven distribution, or noisy operation at point of room entry, the entire system is condemned. On the other hand, if air is delivered efficiently, unobtrusively, quietly, the whole job is lauded. The one way to write an insurance policy on satisfaction with each job is to specify the finest available air distribution equipment. Then you know you will get the best possible results from the entire system, free from troublesome and costly service calls. At the same time, you assure yourself of proved designs which are easier to install, harmonize beautifully with modern surroundings, last a lifetime. In the Uni-Flo line you get all these advantages, plus many exclusive developments. Choose from this wide selection:

<p>GRILLES, REGISTERS—available with a wide variety of frame styles and core designs to meet all wall and door installation requirements. Wide selection of finishes.</p>	<p>CEILING DIFFUSERS—Venturi-Flo units provide adjustable air patterns in a complete range of sizes. Minimize ceiling smudge. Available with integral lighting.</p>	<p>SQUARE, RECTANGULAR DIFFUSERS—to match acoustical ceiling designs. Adjustable air patterns... exclusive with Uni-Flo. Surface or recessed types. Minimize ceiling smudge.</p>
<p>HIGH VELOCITY UNITS—control units and air valves reduce high velocity, high pressure air to conventional flow. Available with sidewall or ceiling diffusers and to supply air to branch ducts.</p>	<p>UNI-FLO ACCESSORIES—unique Uni-Flo developments for more efficient handling of air in ducts, grilles, registers, diffusers. Assure even air distribution, easier system balance.</p>	<p>LINE-O-FLO CEILING DIFFUSERS—provide uniform air distribution over entire length of linear units. Supplied with or without integral fluorescent lighting fixtures.</p>

BLAZING THE TRAIL TO BETTER AIR DISTRIBUTION

When Barber-Colman entered the air distribution field, almost twenty years ago, we found meager and incomplete selection data. Up to then, rule-of-thumb methods were in common use. "Guesstimating" was accepted practice in determining sizes and proportions of the opening; the grille in most cases was added merely for decorative purposes.

In our research laboratory, every possible condition of air distribution was simulated. Results were tabulated and compiled into usable application data bulletins. Today, this time-proved information is used by architects, engineers, and contractors to determine

exact requirements for each application.

From our research laboratory, too, come such outstanding "firsts" as opposed-blade volume control and air flow balancing devices; air turning equipment; adjustable ceiling outlets; high velocity air valves... to mention only a few.

Today, Barber-Colman's certified data is available to you from our nearby Field Office. Phone or write us for information on any type of air distribution device, or for engineering help. Specify Barber-Colman and be sure!

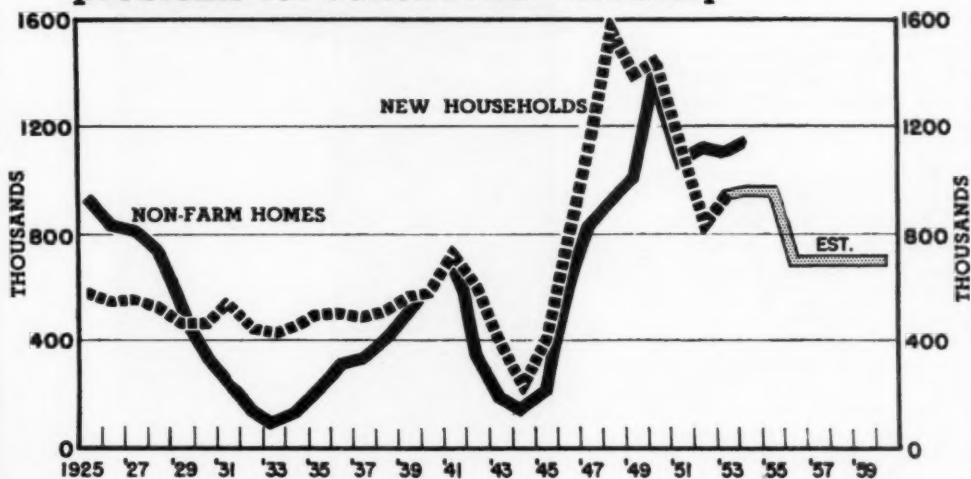
BARBER-COLMAN COMPANY, Dept. M, 1106 Rock Street, ROCKFORD, ILLINOIS



Washington Letter

ARE WE OVERBUILDING?

Prospective drop in new households poses problems for construction industry.



Source: Bureau of the Census, Dept. of Labor

J. A. Livingston

1955 Business Looks Good

By J. A. Livingston*

BY CUSTOMARY STANDARDS, the building industry, particularly home-building, should be fatigued. Carpenters, bricklayers, and sheet metal men should be scratching for jobs. The building trades unions should be on the defensive in bargaining on wages. Stocks of companies manufacturing building materials should be slumping on the New York Stock Exchange, not pushing to new highs.

Yet, home-building's still booming (see chart). Which goes far to explain the current optimism coursing through almost every sector of the American economy.

Residential construction today constitutes one third of total construction. It packs a direct economic wallop. Beyond that it's a sales multiplier. People who buy homes also buy refrigerators, washing machines, furniture, rugs, and myriads of other furnishings.

*Financial editor of the *Philadelphia Bulletin*, whose syndicated column appears in the *Cleveland Plain Dealer* and other newspapers.

When wide-eyed cupid lifted the last leaf from the 1954 calendar, the sixth consecutive million-home year and the second highest home-building year went into history. Neither rising prices nor the 1949 and 1954 slumps in employment crimped output of new homes:

Year	No. of New Residential Units
1948	932,000
1949	1,025,000
1950	1,396,000
1951	1,091,000
1952	1,127,000
1953	1,104,000
1954 (est.)	1,140,000

(Continued on page 46)

"YOU'LL REALLY THRIVE...IN '55...WITH VICTOR"

New 2-Toned Beauty Same Famous Victor Quality!

Hunt the nation over . . . you'll not find a finer furnace to sell than Victor . . . for Quality . . . for Sales appeal . . . for Owner satisfaction . . . for PROFIT!

It's the furnace with the Fuel-Saving FINS, famous since 1890. Every De Luxe Victor you sell is WAR-RANTED for 15 Years. The many exclusive features of genuine merit TAKE YOU OUT OF THE COMPETITIVE CLASS. The versatility of the many models, for both winter and summer air conditioning, assure you a VICTOR, tailored to the needs of every possible installation. The new, exclusive VICTOR franchise offers bigger dealer-distributor profits than ever before.



Sales Closing Aids...

NEARLY 100 MODELS
AND SIZES FOR

- GAS •
- OIL •
- COAL •

The multitude of sales aids makes closing VICTOR sales easy. From the unique VICTOR table-top Fuel-Saving FIN demonstrator to the decals on your truck . . . from newspaper ads to sales easel and literature . . . you are equipped to cash-in in '55 with VICTOR. PHONE, WRITE OR WIRE FOR FRANCHISE FACTS TODAY!



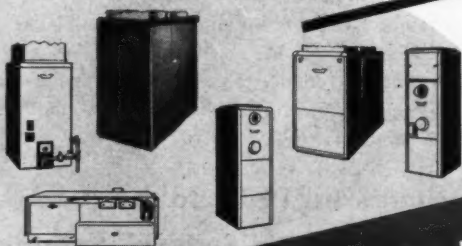
HALL-NEAL FURNACE CO. 1322-42 N. CAPITOL AVE.
INDIANAPOLIS 7, INDIANA
QUALITY FURNACE BUILDERS SINCE 1890

"YOU'LL REALLY THRIVE...IN '55...WITH VICTOR"

Victor Quality! PLUS NEARLY 100 MODELS AND SIZES, TAKE YOU OUT OF THE Competitive CLASS

For GAS

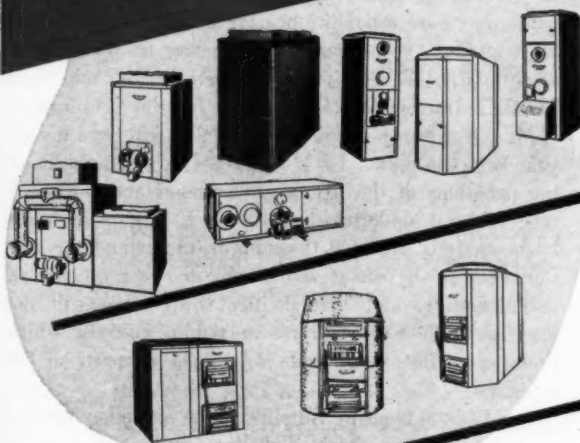
You cannot find a more complete line of gas furnaces which will enable you to compete for any type installation. Low-boys, forced air and gravity... high-boys, counter-flows, horizontals and the huge "Jumbo" for commercial installations, give you a complete line famous for quality since 1890. All AGA approved and warranted for 15 years!



VICTOR

For OIL

As with the VICTOR Gas line... so with the VICTOR Oil line. It's COMPLETE! It carries the same 15 year WARRANTY. Every De Luxe VICTOR Gas, Oil or Coal Furnace is equipped with the famous VICTOR Fuel-saving FINS. Quality, alloy-steel construction plus VICTOR engineering and know-how give you a line which you install with confidence... there is no finer furnace built than VICTOR.



For COAL

The VICTOR De Luxe coal line offers both gravity and forced air furnaces in square, round and "Jumbo" models, all Boiler-plate steel and patented FIN construction. For long-lived satisfaction they cannot be surpassed. Many VICTORS installed in the 1890's are still giving efficient, economical service.

VICTOR
THE FURNACE WITH
FUEL-SAVING
HEAT-RADIATING FINS

WRITE, WIRE or PHONE
for full information about the new VICTOR
franchise TODAY! The complete line, the generous discounts, sales quantity bonuses, complete sales and advertising helps and an experienced, FREE engineering service make VICTOR the big profit line for '55!

HALL-NEAL FURNACE CO. 1322-42 N. CAPITOL AVE.
INDIANAPOLIS 7, INDIANA

QUALITY FURNACE BUILDERS SINCE 1890

WASHINGTON LETTER—

Outlook for '55

(Continued from page 43)

Yet each year produced a crop of skeptics. Demographers pointed back to the depression '30s. The baby crop was low. Babies that weren't born in the '30s couldn't be around in the '50s to get married and buy new homes.

Right now, the forecast is for fewer than 800,000 new households per year from 1956 to 1960. Even as recently as '53 and '54, homebuilding outstripped new households. So, what's the explanation for this prolonged boom in building? Whence came the great demand?

1,500,000 Doubled-Up Marriages

First, the war deferred marriages.

Second, the war also deferred home building. When the rush to set up housekeeping started after the war, housing was scarce. In 1947, 8.6 percent of married couples did not have their own households. In 1940 that proportion was only 6.8 percent.

Third, high postwar wages and salaries enabled young married couples to set up their own homes. Today only 1,500,000 married couples — 4.2 percent of the total — are living in other peoples' households.

Fourth, the federal government, by guaranteeing mortgages, enabled younger persons to buy homes with small down payments. The 83d Congress was especially liberal.

Fifth, the trend toward larger families — more babies per marriage — put pressure on younger married couples to live apart from parents.

Sixth, more widowed, divorced, or single persons set up housekeeping for themselves. In 1948 only 10 percent of all households were operated by individuals. Today that percentage is up to 13. Individuals with high earning power can afford to live alone. In addition, Social Security benefits and pensions make it possible for older persons — widows and widowers — to maintain their own residences instead of "takin' up with the young folks."

Marriage Rates Leveling Off

All those influences won't go on forever. It is well for governments — federal, state, and local — to be alert to this eventuality. After all, the pressure of unhoused families has subsided. And marriages are fewer — only 1,600,000 in 1953 versus 2,300,000 in 1946 and 2,000,000 in 1947.

For the next few years, the marriage rate will be governed by the small crop of babies during the depression — about 2,100,000 to 2,200,000 a year. But beginning in 1938 the baby crop began to pick up, an encouraging augury for the '60s.

Year	No. of Live Births
1938	2,287,000
1939	2,266,000
1940	2,360,000
1941	2,513,000
1942	2,809,000
1943	2,935,000
1944	2,795,000
1945	2,735,000
1946	3,289,000
1947	3,700,000

Add 20 years to the above dates and you get a glimmer of future demand for wedding cakes, new homes, furniture and household equipment and supplies. Surely carpenters, bricklayers, sheet metal men and manufacturers of building materials can look forward to the mid-sixties with a sense of high security.

Business in 1955 to be Tied

Closely with Federal Spending

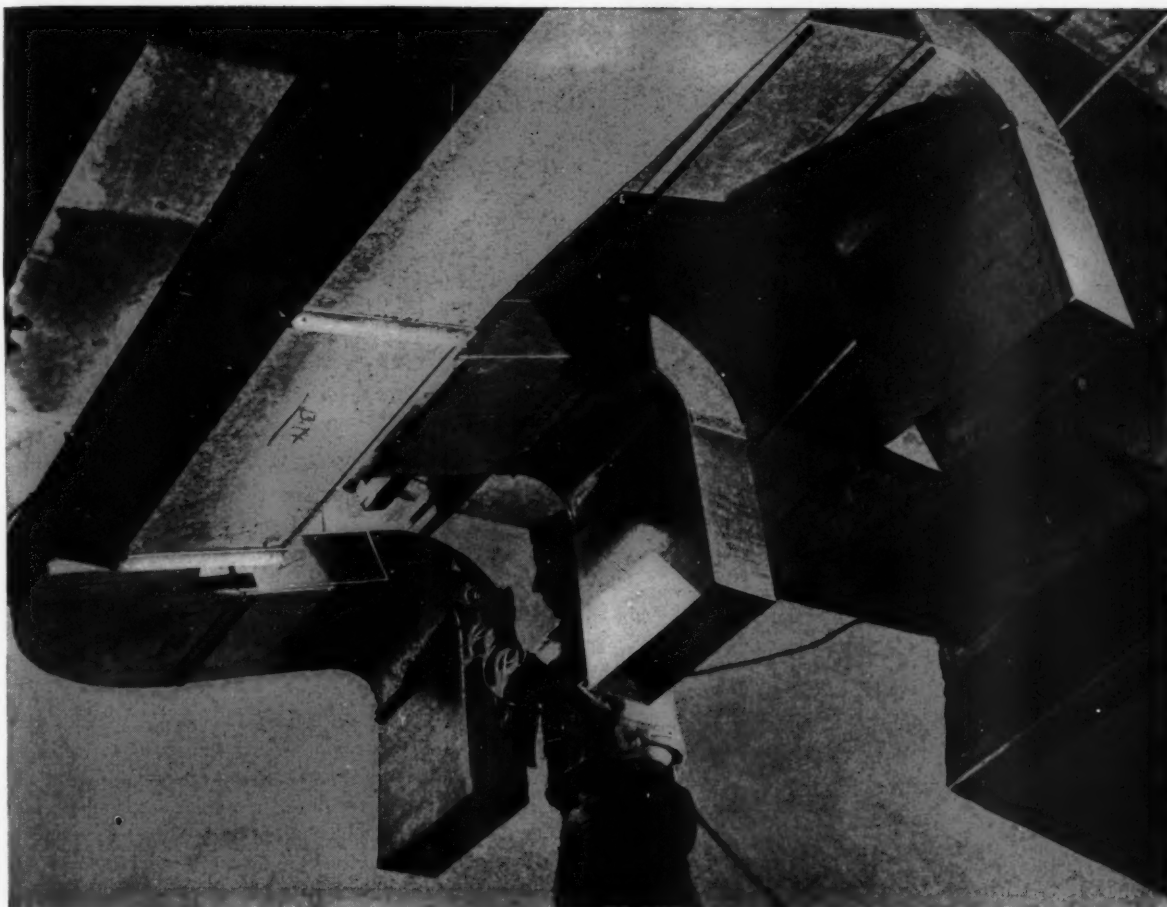
By Arnold Kruckman **

FEDERAL SPENDING for the fiscal year 1955 will be \$66,750,000,000 according to the latest authentic report assembled by Paul O. Peters, research consultant who is considered an ultimate authority on such information in Washington. The facts are particularly interesting because they have a definite bearing on the business future as it is seen by sheet metal contractors in Washington, according to C. R. Breneman, secretary of the Sheet Metal Contractors Association of the District of Columbia.

Mr. Breneman anticipates contractors will have a good year from all angles. He is of the opinion that the housing programs of the federal government and the many other federal undertakings will inevitably mean more business. It is expected the administration and the new Congress, on the whole, will be able to reach quickly an understanding, and that political differences will not interfere with either private or public business which promises to be of enormous volume in all parts of the country.

The Federal Housing Administration and other government agencies, in recent bulletins, emphasize there is enormous demand for credit to build homes. They emphasize that the rising birth rate urgently makes necessary, as quickly as possible, millions of additional living quarters which are in demand by home-owning families. They also stress that millions of older homes need renovation and repair, and are capable of being rehabilitated. The FHA brings this home to organizations in all parts of the country which are capable of arranging loans. One

**American Artisan Washington correspondent.



For Looks, Long Life, Low Cost Make it with Galvanized Steel

Your sheet-metal jobs have real sales appeal when you work with Bethlehem galvanized steel sheets. Those thousands of gleaming spangles give a clean, bright appearance that pleases the eye and reflects your excellent workmanship.

Bethlehem galvanized sheets make your duct-work long-lasting. The tight coat of rust-resisting zinc will stand off the attacks of corrosion for many years to come.

Low cost is another advantage of Bethlehem galvanized steel sheets. Being stronger than other commonly-used sheet metals, galvanized steel can be used in the lighter, less expensive gages. Pound

for pound, no other sheet metal can match the low cost of steel.

Bethlehem galvanized sheets, including plain and copper-bearing as well as Bethcon continuously galvanized sheets, are made from durable, open-hearth steel, cold-rolled uniform to gage. They are flat, ductile, easy to work. They'll help you turn out a top-notch job that is sure to please the customer every time.

BETHLEHEM STEEL COMPANY
BETHLEHEM, PA.

On the Pacific Coast Bethlehem products are sold by
Bethlehem Pacific Coast Steel Corporation. Export
Distributor: Bethlehem Steel Export Corporation

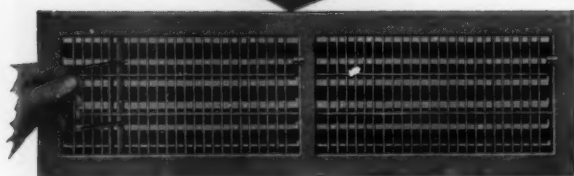


Bethlehem *GALVANIZED* Steel Sheets

INDEPENDENT

"Fabrikated"
REG. U. S. PAT. OFFICE

AIR CONDITIONING REGISTERS



No. 321-A HMV Tandem

Each front grille bar may be adjusted individually. As a result, the angles of deflection or combinations of grille bar adjustment are unlimited. These adjustments may be made when register is installed or at any later time desired. The valves in Independent HMV registers are readily set by a lever control located on the front to direct the air up or down, or the valves may be fully closed. Available in a number of small and large sizes.



We take this opportunity to thank our jobbers, installers and contractors for their patronage over the past years. The good will and support of our many friends and customers have made possible the continuance of our slogan "Always Leading, Always Progressing."

Prompt service is our motto. There's no order too small for our special attention.

See us at Heating & Ventilating
Exposition Booth No. 701

THE INDEPENDENT REGISTER CO.

3747 E. 93rd STREET • CLEVELAND, OHIO

WASHINGTON LETTER —

bulletin states: "The future holds unlimited possibilities in the need for property improvement credit."

The government urges industries like the sheet metal contracting business to develop its association with the greatest possible number of persons who can become savers and mortgage-loan borrowers. It urges the open-end mortgage and property-improvement loans, makes a point of the fact that they go hand-in-hand and expresses the hope that the business people will encourage progressive savings associations to offer both services.

Stress Close Cooperation

Like the government, sheet metal industry people suggest that the combination between the dealer, the lending institution and the consumer should be very close. It is suggested and underscored in the government bulletin that the lending institution must do business only with reputable dealers. Further it is suggested a thorough knowledge of the dealer is all-important, and in dealer selection emphasis should be placed on a careful check of financial responsibility and moral reliability.

Industrial interests and businesses of all kinds already are working to induce Congress to place a stronger ban on secondary boycotts, and to make state labor laws stronger and more effective. They also are striving to put the unions under antitrust laws and similar restrictions; and they are making vigorous efforts to induce the President, under all circumstances, to leave the minimum wage where it is at this time. There is no secret about the efforts that the various industrial and business organizations are making to persuade the White House and the Labor Department to do nothing about the minimum wage law. It is also anticipated that the labor organizations will work hard to secure amendments to override state laws that are anti-union or anti-closed shop.

Booklet Explains Wage Law Applications

Even attaches of the Department of Labor and of the wage and hour and public contracts divisions will tell you that minimum wage laws are complicated and puzzling in their application to various types of work.

If you are interested in details write to the Wage and Hour and Public Contracts Divisions, United States Department of Labor, Washington 25, D. C., and ask for *Explanatory Bulletin With Regulations Part 541*; also for *Regulations Part 541*. The first is a document of thirty-odd pages, quarto size and must be read with a great deal of care in order to secure the detailed information. It defines particularly the terms executive, administrative, professional, local retailing capacity and outside salesmen classifications as contained in Section 13(a) (1) of the Fair Labor Standards Act of 1938, as amended, providing exemptions in the wage and hour provisions of the act.

(More Washington news on page 50)

INTRODUCING THE VERSATILE

Commercial-Aire

DIRECT-FIRED SPACE HEATERS

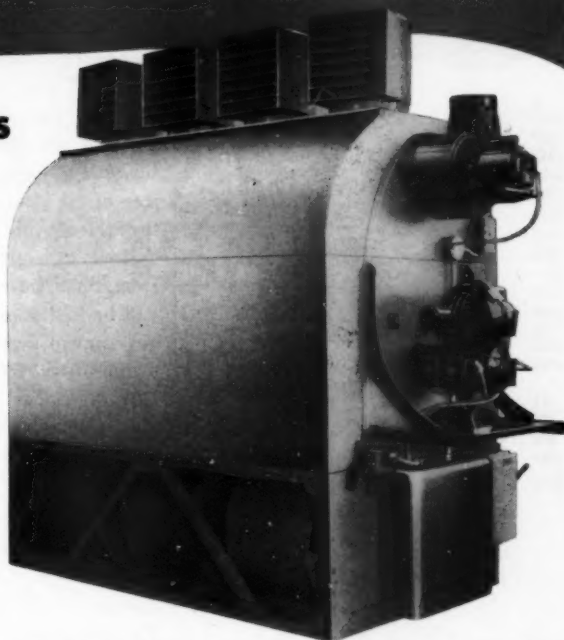
*A Modern Concept
of*

- Combustion Efficiency
- Air Engineering
- Control System Design
- Warm Air Versatility

SENSIBLY PRICED

EFFICIENT—Commercial-Aire direct-fired heaters offer a new high in efficiency. Recommended for the proper heating of industrial, commercial and warehouse space. These heaters have a guaranteed combustion efficiency of 80%. Newly designed heat exchanger saves fuel. Oversize primary and secondary transfer surfaces stop heat losses. Separate induction draft blower purges combustion chamber. Delayed relay starts main burner only when heat exchanger is purged. Fan control starts main blower only when proper bonnet temperature is reached.

ECONOMICAL—Commercial-Aire direct-fired heaters burn fuel only when thermostats call for heat...no heat waste. Burners shut off when desired temperature is reached...no



heat transmission loss. No fuel burned to maintain steam pressure or water temperature...no cold blast on start. High speed heat discharge maintains proper temperature at working level.

ADAPTABLE—Commercial-Aire direct-fired heaters offer a new high in adaptability...burn three types of fuel: heavy oil, light oil, gas, and combination of these fuels. Units are of versatile construction and may be installed in any position, upright, horizontally suspended, and inverted suspended. They are adaptable to direct space heating systems or duct distributing systems. 10 Sizes...300,000 to 2,000,000 B.T.U.'s. Write for complete specifications and prices.

Commercial-Aire SPACE HEATERS ARE MADE BY THE MAKERS OF

MAMMOTH

VERTICAL STEEL TUBULAR HEATERS

Compacto and Adapto models have been long and favorably known. Widely used in churches, schools, factories, auditoriums and commercial buildings where duct type system of heating is indicated. High efficiency comfort heating, with low fuel consumption guaranteed. Write



*Send
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Today!*

MAMMOTH FURNACE COMPANY

507 Vandalia Street, St. Paul, Minnesota

Gentlemen:

Please send promptly full information, prices, etc. on

- ☐ COMMERCIAL-AIRE DIRECT-FIRED SPACE HEATERS
☐ MAMMOTH VERTICAL TUBULAR STEEL FURNACES

Your Name _____

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HEAT OR COOL WITH
Vectaire
PERIMETER
BASEBOARDS

World's most beautiful baseboard • The **IMPERIAL**
styled by **VECTAIRE** • priced to sell

Fits flush with wood baseboard
Available in 5' and 10' lengths
"Push button" heat control

WRITE FOR FACTS AND FIGURES

VECTAIRE MFG. CO.
Melrose, Mass.

WASHINGTON LETTER —

The Senate Small Business Committee, in connection with the Small Business Administration, has established what it calls a "one-stop" Procurement Information Center. The first office has been opened in Washington, D. C. to serve small businessmen who want to get a government contract. The office has made available current defense department bid invitations for supplies and for services of all kinds. It is intended that the defense bid invitations shall be limited to supplies procured solely from small business. However, there will be invitations to bid — by other government departments — available to those who seek the opportunity.

Businessmen will be told of the time and place of bid openings and advised on the procedures for submitting bids.

The Procurement Information Center is located in Room 401 of the Lafayette Building, 811 Vermont Avenue, N. W., Washington 5, D. C. The telephone number is STerling 3-2858 extension 651.

Small business, contrary to widely held opinion, is becoming increasingly important to the U. S. economy, the Chamber of Commerce of the United States has reported.

In a new study, *Small Business: Its Role and Problems*, the chamber asserts that big and small businesses are usually not competitive but complementary.

"Many of the big business establishments are primarily assemblers of the countless products and parts of smaller concerns," the chamber said. The big company also disposes of its products through many wholesalers and retailers, and in many fields the small firm has a clear road ahead. Mass production is adaptable to only a limited number of products.

Only the small firms can adequately cater to the growing demand for specific, personal services and products; what woman, for instance, would wear a hat identical with twenty million other mass-produced hats?

YOU are invited to read and use **AMERICAN ARTISAN**

You who are making your livelihood from warm air heating, residential air conditioning or sheet metal contracting can best use the practical helps published in *American Artisan* each month.

• Last year's record is evidence that the *Artisan* covers these subjects most thoroughly: 175 feature pages on Air Conditioning and Warm Air Heating; 170 pages on Sheet Metal Fabrication and Contracting; 215 pages on Management Methods. That's 560 pages—in addition to useful departments such as Questions & Answers, New Products, Trade Literature, Association Activities, etc.

• You will get in the *Artisan* vital information and practical "know-how" of dollars-and-cents value to your business. It points the way toward better methods, lower costs, and improvements in merchandising and contracting procedures, also correct practices in design, fabrication, installation, and servicing.

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HAVE USED** **1950
1955**

HANDY PIPE

through the years

KNOW that it helps them KEEP COSTS DOWN and that it unfailingly stands up and continues to function through the years, due to

- (1) CORRECT DESIGN,
- (2) ACCURATE CONSTRUCTION,
- (3) QUALITY WORKMANSHIP and
- (4) PRIME MATERIALS.

It is a profitable pleasure to work with such a fine product.

F. MEYER & BRO. CO.

**Peoria
Illinois**



HANDY pipe is made for every type of water air heating and residential cooling installation.



BEST CHOICE

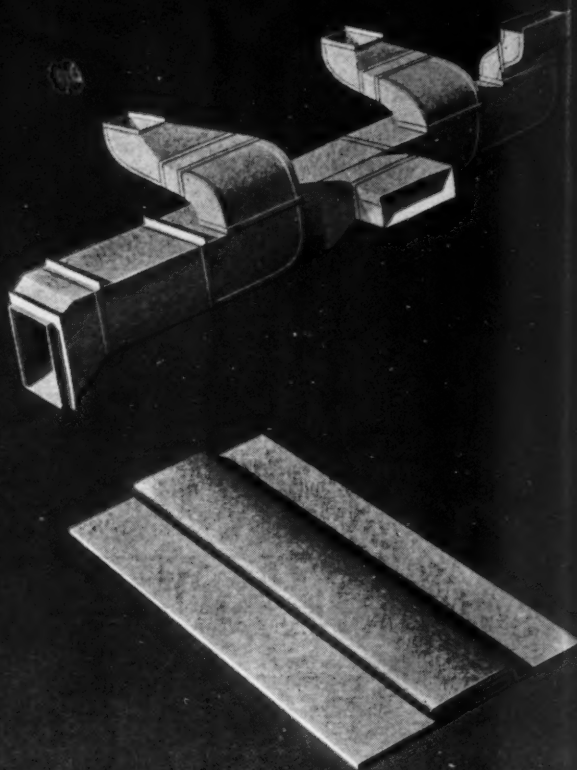
for all your
sheet metal work

WEIRTON GALVANIZED STEEL

For gutters, downspouts, air conditioning and furnace ducts, and other applications requiring a durable zinc-coated material, there's no better choice than Weirton galvanized steel—for several reasons.

Weirton galvanized steel has special qualities that stand out over the long run: A tight zinc coating that resists cracking, peeling and flaking . . . better resistance to corrosion . . . exceptional durability—all assured by Weirton's modern plant and processes, and by close control through the entire production cycle.

Next time you place an order for galvanized steel, call Weirton. Chances are we can help to make yours a better product.



**WEIRTON
STEEL
COMPANY**

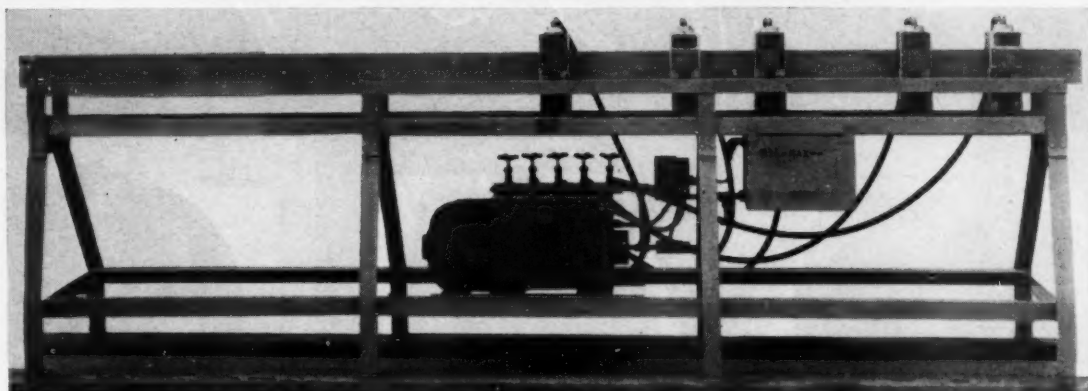
Weirton, West Virginia



NATIONAL STEEL CORPORATION



SPEEDNOTCH . . . **INSTANT SETTING MULTIPLE NOTCHER** **for VENTILATION DUCT**



FIVE MEN'S PRODUCTION FOR ONE MAN'S COST

This new labor-saving machine is especially designed for gangnotching all necessary notches required in the fabrication of ventilation ducts using the government clip, bar slip or "S" and drive connections. The SPEEDNOTCH is a self-contained portable machine.

SETUP TIME . . .

Less than 60 seconds time is required in sliding and locking the punches in their respective positions, ready for notching. Where in many cases only one or two joints of any size duct are required, the complete operation can be done in less time than a single pattern layout. All pattern layouts, scribing, center punching and hand notching have been eliminated.

VARIETY OF WORK . . .

Each of all five punches is equipped with shut-off valves or can be readily removed. This feature allows notching of various types of duct such as straight pipe fabricated from one or more pieces, heels, throats, cheeks or elbows or similar fittings, ranging from 3 1/2" to and including 10'-0". Capacity 18-ga. mild steel. Special notching dies can be mounted on punches to meet individual needs.

OPERATION . . .

Sheets blanked to the correct size are set against the fixed gauges mounted on the punches, all five punches are simultaneously energized by a foot-operated floor switch. Turning the sheet over and repeating the operation, the material is now ready for braking. The accurate notches are used for points of braking.

PROTECTION . . .

The SPEEDNOTCH is fully guaranteed and its ease of operation enables the inexperienced as well as the experienced workman to set and operate. In event

harder materials or heavier gauges than those recommended are used, the relief valve automatically opens, protecting both punches and dies against harm. It is a known fact that shops are notching lighter gauges two or three sheets at a time.

COST SAVINGS . . .

Both small and large fabricators of ventilation duct can equally profit by this amazing time saver. Checks against present methods show an increase of production, high as 400%. Five men's production for one man's cost. As previously stated, the SPEEDNOTCH was designed for quick set-up, making its use profitable for even one or two pieces. Materials are not carried to the workman's bench but directly to the notcher. This in itself is a saving.

SPECIFICATIONS . . .

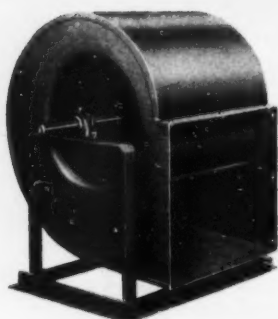
- 1—2 H.P. 220 V. 3 PH. 60 CY. Motor with Starter and Floor Switch. (Also adaptable to 1 PH. Motor.)
- 1—Hydraulic Pump.
- 1—220 Volt Solenoid Valve.
- 5—5000 Lb. Pressure Double Wire Braid Oil Lines.
- 5—5000 PSI Hydraulic Punches.
- 3—30" Male and Female Hardened Tool Steel Dies.
- 2—125" Male and Female Hardened Tool Steel Dies.
- 4 Gallon Oil Reservoir Tank.
- 4" x 3" x 3/8" x 10'-3" Punch Rail.
- Structural Iron Frame.
- Length 10'-3"; Width 2'-0"; Height 3'-9".
- Weight Approximately 600 Lbs.

Sold direct from manufacturer. For information write

HARPER METAL PRODUCTS, LTD.
27 LAYNE PLACE, SAN BRUNO, CALIF.

You can rely on

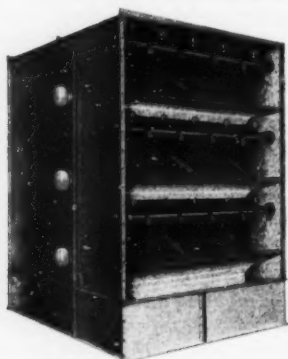
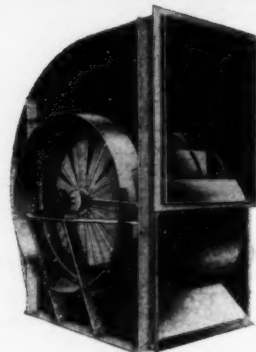
Clarage . . .



CLARAGE

Fan Equipment for Conditioning Units

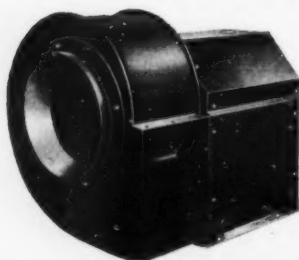
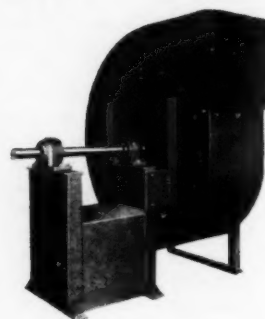
Type DF wheels, housings, and complete fans for air conditioning units, cooling towers, evaporative condensers, etc. in 11 sizes from 250 to 10,000 cfm.



CLARAGE

Air Washers and Sprayed Coil Units

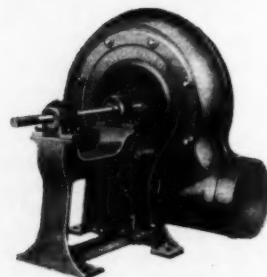
Capillary (shown) and Spray Type Air Washers for air cleaning and purification. Unicoil Units — sprayed coil equipment — for central station systems.



CLARAGE

Ready Unit Ventilating Sets

Complete, ready-to-run units for smaller air handling requirements. Direct connected and V-belt models in 18 sizes, capacities 100 to 14,000 cfm.



CLARAGE FAN COMPANY . .

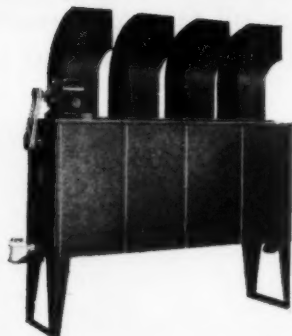
Sales Engineering Offices in All Principal Cities

Air Handling and Conditioning Equipment

CLARAGE

Ventilating and Air Conditioning Fans

Type NH Fans (shown) with backwardly inclined blade wheels, capacities 1,000 to 725,000 cfm. Type HV Fans with forward curved multi-blade wheels, capacities 150 to 450,000 cfm.



CLARAGE

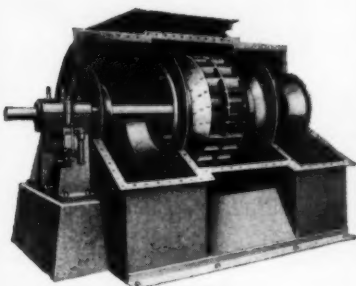
Unit Heaters

Unitherms (shown) equipped with multiblade fans, capacities 60,000 to 1,160,000 B.t.u. Clarco Heaters equipped with propeller fans, capacities 28,000 to 270,000 B.t.u.

CLARAGE

Industrial Air and Material Handling Fans

Type XL Fans range up to 130,000 cfm, 18" SP, 60" inlet diameters. Four wheel types, 16 fan sizes—smaller sizes adjustable as to discharge.



CLARAGE

Mechanical Draft Equipment

Type RT Fans (shown) and other types of Clarage Fans are designed and constructed for induced draft, forced draft, and high pressure industrial applications.

CLARAGE

Industrial Exhausters and Blowers

Type CI Exhausters (shown) with capacities 200 to 3,800 cfm, pressures to 22". Type O Blowers with capacities 150 to 45,000 cfm at high pressures.



CLARAGE

Propeller Fans and Other Equipment

Propeller Fans with capacities 700 to 36,000 cfm . . . Unit Stoker Fans in a wide size range . . . Vortex Control for efficient, economical air volume regulation.

KALAMAZOO, MICHIGAN

In Canada: Canada Fans, Ltd., 4285 Richelieu, Montreal



Hold everything... until you see the

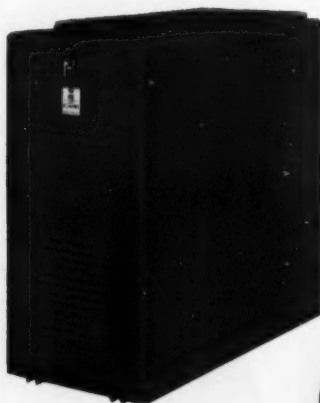
NEW ECONOMY MONEY MAKERS

Everything your customers look for in modern home heating!
New advantages all the way around! Plenty of money-savings for your customers... plenty of MONEY-MAKING for you!



4 GAS HI-BOYS

4 models, 70,000 to 140,000 Btu. input assembled and wired, with vestibule.



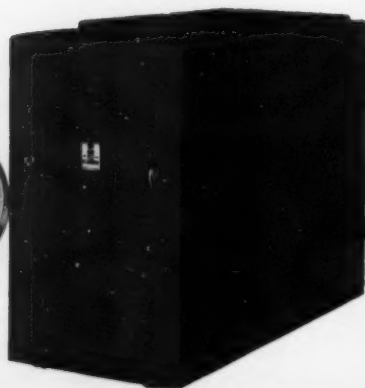
7 GAS LO-BOYS

7 models, 80,000 to 250,000 Btu. input; 4 models assembled and wired, 3 not assembled.



3 GAS GRAVITY UNITS

3 models, 85,000 to 147,000 Btu. input. Smallest size assembled.



10 OIL LO-BOYS

10 models, 84,000 to 448,000 Btu. output; 4 models assembled, 6 not assembled.



3 OIL HI-BOYS

3 models, 84,000 to 135,000 Btu. output, assembled.



3 OIL GRAVITY UNITS

3 models, 89,000 to 157,000 Btu. output, smallest model assembled.



FOR '55!

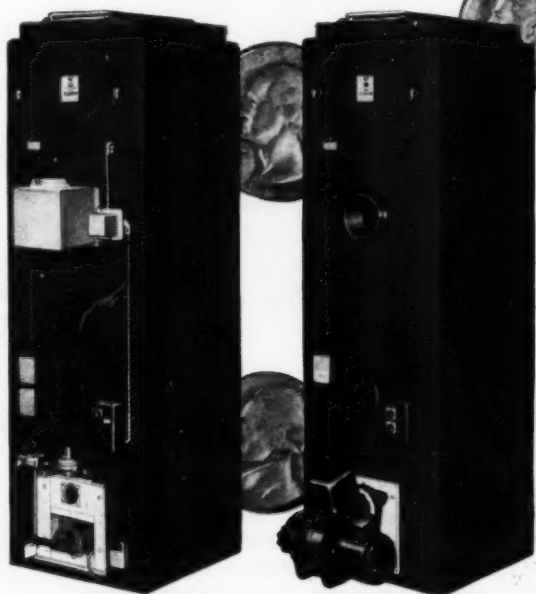
INTERNATIONAL SNAP-LOCK

Standardized and Packaged
Pipe and Fittings



INTERNATIONAL Economy

International Heater Company, Utica 2, New York
Western Warehouse: Chicago, Illinois



4 GAS COUNTERFLOWS

4 models, 70,000 to 140,000 Btu. input assembled.

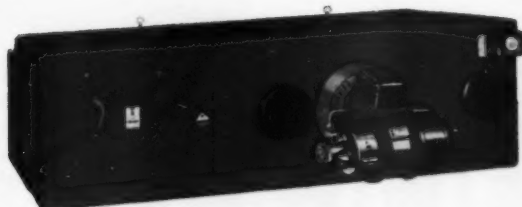
3 OIL COUNTERFLOWS

3 models, 92,000 to 135,000 Btu. output, assembled and wired.



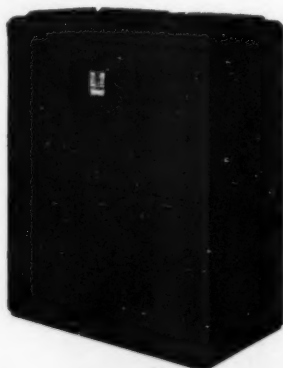
3 GAS HORIZONTAL UNITS

3 models, 60,000 to 100,000 Btu. input, assembled and wired.



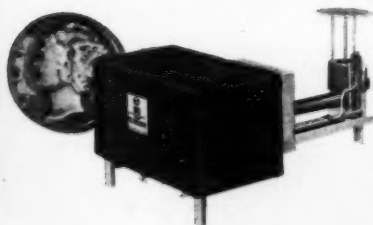
3 OIL HORIZONTAL UNITS

3 models, 84,000 to 168,000 Btu. output, assembled and wired.



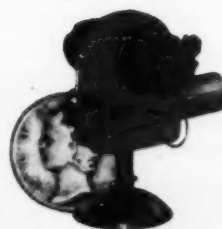
2 SUMMER AIR CONDITIONING UNITS

2 models: 2 and 3 ton.



3 GAS CONVERSION BURNERS

3 models to convert furnaces or boilers—up to 320,000 Btu. input.



2 OIL CONVERSION BURNERS

2 models, pressure atomizing, with capacity of 1 to 3½ gals.

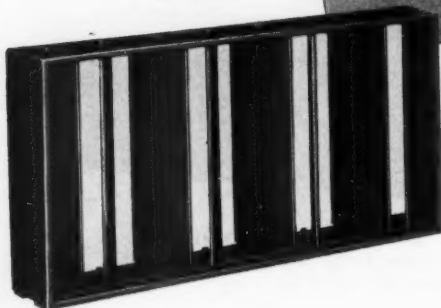
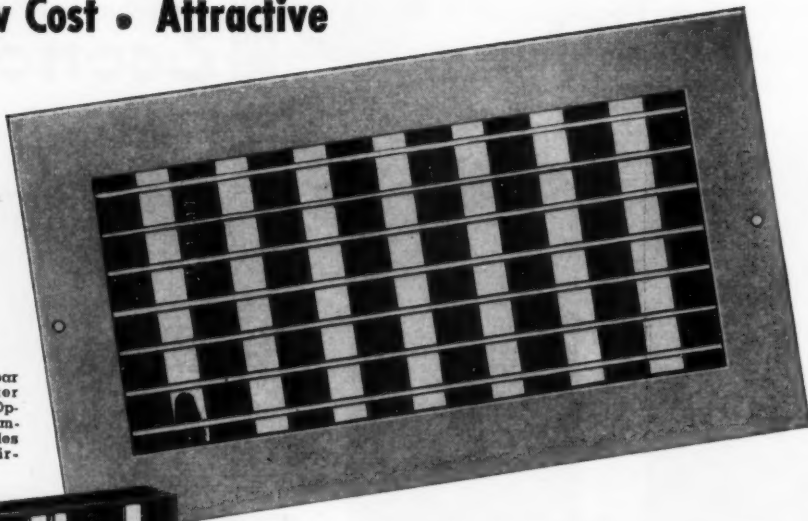


AUER "Streamliner..." WALL DIFFUSERS

for the **FINEST** in AIR CONDITIONING

• Low Cost • Attractive

Single horizontal bar Streamliner Register (above). The new "Opposed-Blade" Streamliner damper provides the ultimate in air-flow control.



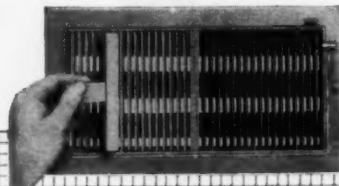
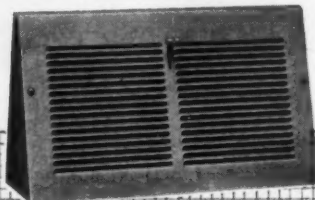
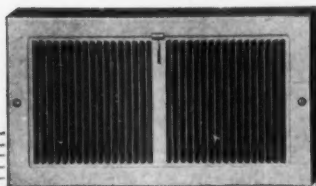
Streamliner Registers and Grilles for heating and air-conditioning are designed for silent operation and maximum diffusion efficiency with today's high velocity systems. Streamliners equipped with the new Auer "Opposed-Blade" damper permit complete air volume and direction control providing the utmost in comfort. Adjustments are quick and easy—no special tools required—an ordinary screw driver is the only tool needed for adjustment or installation.

The Streamliner series includes models to fill any heating or cooling requirement; models with single banks of adjustable bars, vertical or horizontal, also with a double bank of bars vertical in front and horizontal in back (or the

reverse). Each Streamliner bar is aerodynamically designed and quickly adjusted to any desired angle to control diffusion. Easy installation, perfect operation and fine craftsmanship are only a few of the many "Streamliner" features.

The Auer "4000" and "7000" series includes Wall and Baseboard Registers and grilles with single or multi-louvre faces. Illustrated at left is the No. 4042 Airo-Flex Baseboard Register with single valve and adjustable fins. At right is the No. 7046 Baseboard Register with single valve.

Bar adjustments are simply and quickly made. Factory adjustment on "4000" and "7000" series is 22° left or right, up or down.

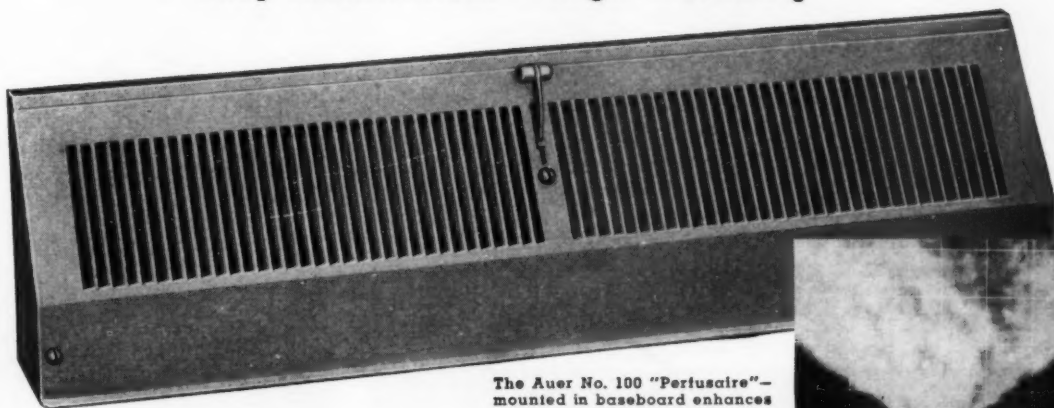


AUER "Perfusaire"...

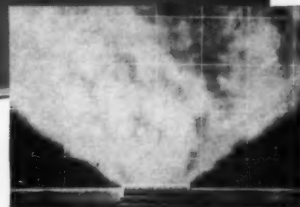
for PERIMETER HEATING

or COMBINATION HEATING and COOLING

• Easy Installation • High Efficiency



The Auer No. 100 "Perfusaire"—mounted in baseboard enhances modern or traditional decor. (right) Huge fan-shaped air-pattern showing efficient diffusion.



The Auer "Perfusaire" eliminates the need for long baseboard type perimeter registers. Only 4½" high and 18" long, "Perfusaire" has the capacity of four to eight foot units. It meets all requirements for air diffusion on both heating and cooling cycles with low air resistance so that maximum throw and spread are achieved. The huge fan-shaped pattern of air delivered by "Perfusaire"

heats entire wall surfaces, giving an even temperature to the entire room. "Perfusaire" is complete—ready-to-install—features a built-in damper—and is provided with "knock-outs" to accommodate 2¼ x 14" or 2¼ x 18" duct openings. Its ease of installation, in new or old construction, outside the baseboard, against the plaster, or plastered in, saves many hours of labor.

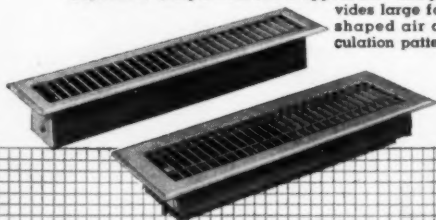
Send for complete descriptive literature on Auer's complete line of "Registers and Grilles for Every Need".

Auer
REGISTERS
and GRILLES

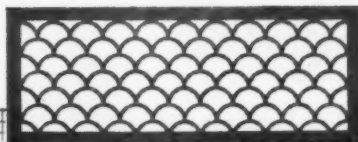
THE AUER REGISTER COMPANY

6602 CLEMENT AVENUE • CLEVELAND 5, OHIO

Auer DRP Floor Perimeter Registers are available in sizes from 2¼" x 14" to 6" x 14". Features built-in adjustable damper—attractive appearance and provides large fan-shaped air circulation pattern.



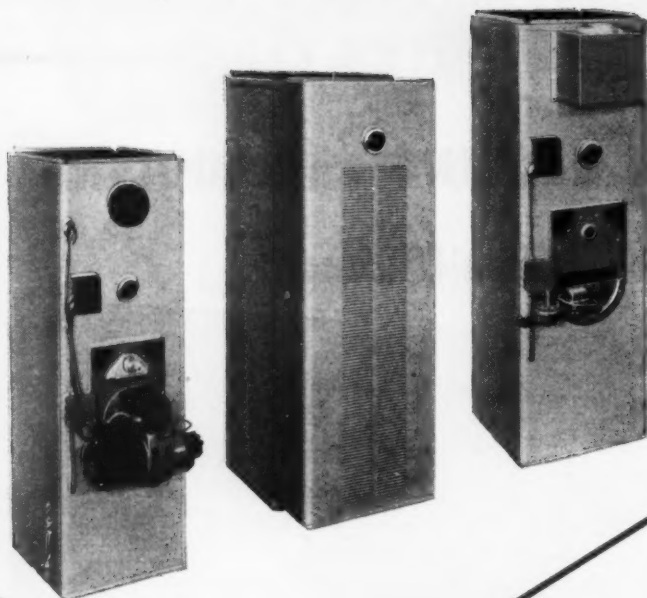
A complete line of Ornamental Grilles to fill the most exacting decorating requirements are available in steel, stainless steel, brass, bronze or aluminum. Shown is the popular Sea Shell pattern.



Auer all-steel clothes chute doors—rigid and tight closing. Available in out-swinging door or push-in types. Push-in type has modern styling with no external projection.



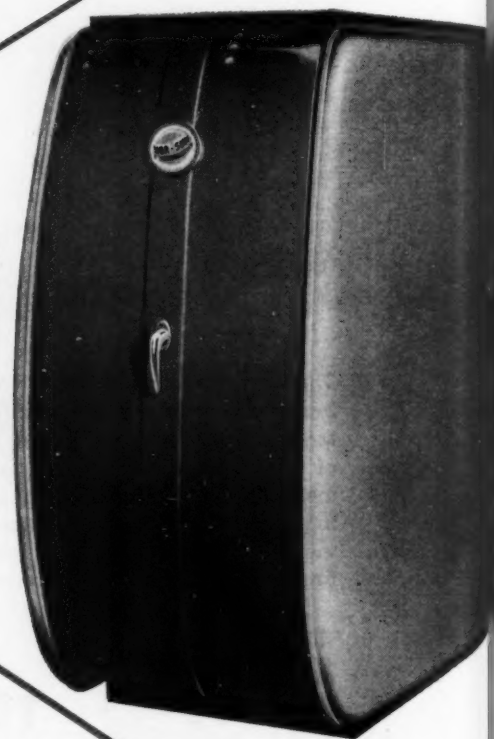
THERE'S A MOR-SUN WARM AIR FURNACE for every home heating requirement... the right size... the right price... for new construction or modernization



NEW "U" SERIES Gas and Oil Highboys. 4 Models. New, improved Heat Exchanger guaranteed for 10 years. Capacities range from 75,000 to 125,000 BTUH Input for gas and 72,800 to 112,000 BTUH Output for oil. Vestibules are optional on this series.

MOR-SUN

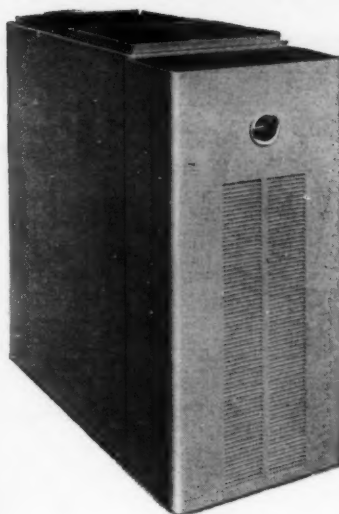
FOR '55...



DELUXE JMT SERIES Gas and Oil. 4 Models. New, improved Heat Exchanger guaranteed for 10 years. Capacities from 105,000 to 190,000 BTUH Input for gas and 95,200 to 151,000 BTUH Output for oil. *The finest Automatic Forced Warm Air Furnace available anywhere.*

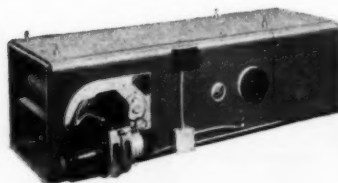
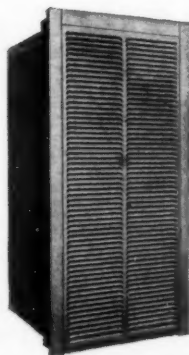


NEW "C" SERIES Gas and Oil Counterflows. 4 Models. New, improved Heat Exchanger guaranteed for 10 years. Capacities range from 75,000 to 125,000 BTUH Input for gas and 72,800 to 112,000 BTUH Output for oil. Vestibules are optional on this series.



NEW "B" SERIES Gas and Oil Lowboys. 3 Models. New, improved Heat Exchanger guaranteed for 10 years. Capacities from 95,000 to 130,000 BTUH Input for gas and from 84,000 to 112,000 BTUH Output for oil. Vestibules optional.

new models...new features...a complete line



NEW "H" SERIES Gas and Oil Horizontals. 4 Models. Capacities from 80,000 to 140,000 BTUH Input for gas and 72,800 to 112,000 BTUH Output for oil.

MODEL C-75 WALL FURNACE Gas and Oil. For flat wall or corner installations. Capacities — 75,000 BTUH Input for gas and 57,000 BTUH Output for oil.



GRAVITY SERIES
Gas only. 2 Models.
Capacities from
80,000 to 110,000
BTUH Input.

FOR ALL THE FACTS...
fill in this coupon and mail today

Mor-Sun Division, MORRISON STEEL PRODUCTS, Inc.
609 Amherst Street, Buffalo 7, New York

Send us all the facts about Mor-Sun Warm Air Furnaces and Air Conditioners.

Name Title

Firm

Street

City Zone State

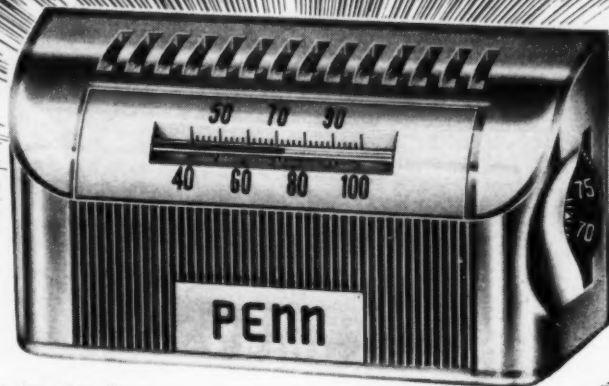


Mor-Sun Warm Air Furnaces and Air Conditioners are distributed nationally and sold through leading heating equipment dealers everywhere.

Also manufacturers of ROLY-DOOR STEEL GARAGE DOORS and MORRISON SERVICE BODIES.

You get so much more with MOR-SUN

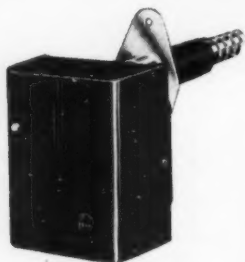
controls



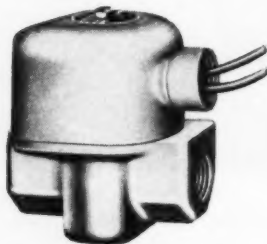
Type 870-H featuring the modern, horizontal "new look" in room heating thermostats.



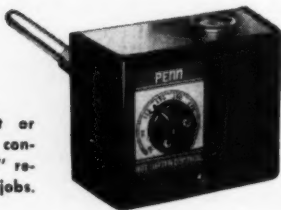
Type 520 liquid expansion combination fan and limit control with calibrated dials.



Type 672 oil burner stack switch with low voltage protection and sturdy bi-metallic element.



Type 926 gas valve with straight-through flow and vertical self-cleaning seat.



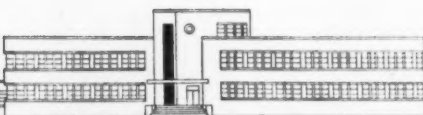
Type 442 safety limit or operating immersion control with "trigger-quick" response for hot water jobs.

that deliver the
HEATING COMFORT
you sell!

You *always* fulfill your promise to customers with Penn automatic controls. On any type of heating system with any kind of fuel . . . once Penn controls are installed properly, their dependability and accuracy deliver the *better heating comfort you sell!* It's the kind of care-free performance that creates better-satisfied customers, more sales and more profit for you.

For convincing proof, specify and install Penn controls on your next heating job. Ask your burner manufacturer or wholesaler. **Penn Controls, Inc., Goshen, Indiana.**

Penn



AUTOMATIC CONTROLS

FOR HEATING, REFRIGERATION, AIR CONDITIONING, GAS APPLIANCES, PUMPS, AIR COMPRESSORS, ENGINES

WHAT THE ASSOCIATIONS ARE DOING



MEMBERS of the convention committees of the Sheet Metal and Warm Air Heating Contractors' Association of Indiana met recently to discuss program plans for the forthcoming 37th annual convention. Seated (*l. to r.*) are: Homer Selch, Frank Anderson, Russell A. Harris, Harold D. Boyd, Charles H. Buck, T. B. Speaker. Standing: Al Nemec, Don McCloskey, Harry R. Hurt, Dick Watson, Chris Sorensen, Harry Dorsett

Indiana Group Works on Convention Plans

FRANK ANDERSON, secretary of the Sheet Metal and Warm Air Heating Contractors' Association of Indiana, reports that program plans for the group's 37th annual convention, to be held February 3 to 4 at the Hotel Severin, Indianapolis, are nearing completion. Several well-known speakers have been engaged to discuss subjects of immediate interest to sheet metal contractors and warm air heating and air conditioning dealers.

Fred Morse, of Purdue University, will discuss the 1955 Purdue warm air heating short course. Edward Hanson, Hubbell Metals, Inc., will give an illustrated talk on stainless steel. William T. Miller, professor of heating and ventilating, Purdue University, and Dean Lorin G. Miller will discuss various phases of air conditioning. Electric heating is another subject scheduled for discussion. On Friday afternoon a residential air conditioning panel, composed of four well-known figures in the field and moderated by T. B. Speaker, will present answers to some of the problems most frequently encountered by air conditioning dealers in their daily business.

Entertainment planned includes a banquet and

dance on Thursday evening and several events for the ladies during both days of the convention to be held next month.

Dealers Urged to Sell "Quality"

IN A LETTER addressed to its dealer members, the National Warm Air Heating and Air Conditioning Association discusses the tendency of consumers to "always want something better," and urges warm air heating dealers to take advantage of this buyer's attitude by directing their emphasis toward *better* jobs rather than just more of them. Such a policy, the association suggests, would have three results:

1. There would be less competition for cut-price, low-quality installations bringing poor profit returns.

2. Better installations would give dealers and the industry *quality* prestige and help counteract the effect produced by operators who deplete the market by flooding it with installations that give poor results.

3. As more warm air installations are made on this basis, consumer standards will become higher,

(Continued on page 66)

what's behind the **OF FURNACES AND**

For every size home...

for every type of fuel



Waterbury
FURNACES AND
WINTER AIR
CONDITIONERS

"It's what's under the casing that counts!"

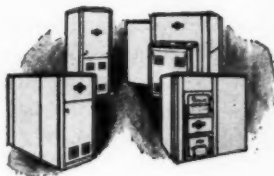


The **Waterman**
OVER 48 YEARS OF
1125 JACKSON STREET, N. E.



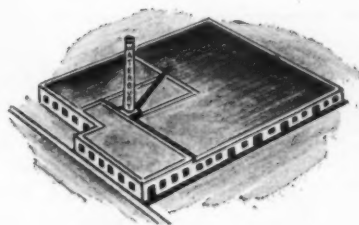
Waterbury line . . .

WINTER AIR CONDITIONERS?



PRODUCT... Every Waterbury furnace, air conditioner and gas conversion burner must meet the highest standards in warm air heating equipment. This is in line with the Waterbury belief that "it's what's *under* the casing that counts!"

FACTORY... For over 48 years, the Waterman-Waterbury Company factory has combined the finest efforts of skilled craftsmen and experts in heating. The result has been continuing customer satisfaction with Waterbury.



POLICY... Waterman-Waterbury maintains a clearly-stated policy towards dealers and distributors. It includes exclusive distribution rights, a close, personal relationship between dealers and factory, and a complete line of quality equipment.

MARKET... National advertising and the testimony of satisfied customers give prospective customers confidence in Waterbury. Effective merchandising and local advertising help these prospects become satisfied customers.



These are but a few of the many reasons so many dealers find that association with Waterbury is good business. They know Waterbury is the right line with the right policy.

Waterbury Co.

WARM AIR HEATING

MINNEAPOLIS 13, MINNESOTA



WITH THE ASSOCIATIONS

(Continued from page 63)

with the end result that dealers will make better sales to more people.

The letter also points out the new FHA rulings on Minimum Property Requirements follow the association's perimeter slab, crawl space and other recommendations as found in NWAHACA's manuals. It suggests that if a dealer's local heating code is being revised, he should make sure the authorities have a copy of the NWAHACA Warm Air Heating Library and should point out that both the Federal Housing Administration and the Veterans Administration have accepted the association's recommendations.

NOHC Outlines Promotion Plans

THE NATIONAL OIL HEAT COUNCIL, an organization formed to publicize automatic oil heat, outlined its promotion plans to representatives of major oil companies at a meeting held recently at Chicago's Conrad Hilton Hotel. William E. Allman, president of NOHC, told the group that the program had already been approved by the oil heat marketing and equipment manufacturing segments of the industry. "When major oil companies join their support to that from the rest of the industry," he said, "this industry will have de-

(Continued on page 218)

Coming Events

Jan. 20-22—National Heating Wholesalers Association, Inc., annual convention. Bellevue-Stratford Hotel, Philadelphia. C. Stuart Rambo, Executive Secretary, 228 N. LaSalle St., Chicago 1.

Jan. 23-26—New York State Sheet Metal, Roofing & Air Conditioning Contractors' Association, Inc., annual convention. Mark Twain Hotel, Elmira, N. Y. Clarence J. Meyer, Secretary, 567-69 Genesee St., Buffalo.

Jan. 24-27—American Society of Heating and Air-Conditioning Engineers, 61st annual meeting. Bellevue-Stratford and Benjamin Franklin Hotels, Philadelphia. A. V. Hutchinson, Secretary, 62 Worth St., New York 13.

Jan. 24-28—International Heating and Ventilating Exposition—the Air Conditioning Exposition. Commercial Museum, Philadelphia. Managed by the International Exposition Co., 480 Lexington Ave., New York 17, and sponsored by the ASHAE.

Feb. 3-4—Sheet Metal & Warm Air Heating Contractors' Association of Indiana, annual convention. Hotel Severin, Indianapolis. Frank E. Anderson, Secretary, 439 S. 17th. St., Terre Haute.

Feb. 10-12—Sheet Metal Contractors Association of Minnesota, annual convention. Hotel Lowry, St. Paul. H. T. Helle, Secretary, 531 Rice St., St. Paul 3.

Feb. 14-17—Fourth Annual Industrial Ventilation Conference. Kellogg Center, Michigan State College, East Lansing, Mich.

James C. Barrett, Michigan State College, Lansing 4, Mich.

Feb. 24-25—Michigan Heating & Sheet Metal Association, annual convention. Bancroft Hotel, Saginaw. N. J. Biddle, Secretary, 3035 E. Grand Blvd., Detroit 2.

Feb. 28-Mar. 2—Ohio Sheet Metal Contractors' Association, annual convention. Sheraton-Gibson Hotel, Cincinnati. William C. Lum, Secretary, 2512 Albion St., Toledo.

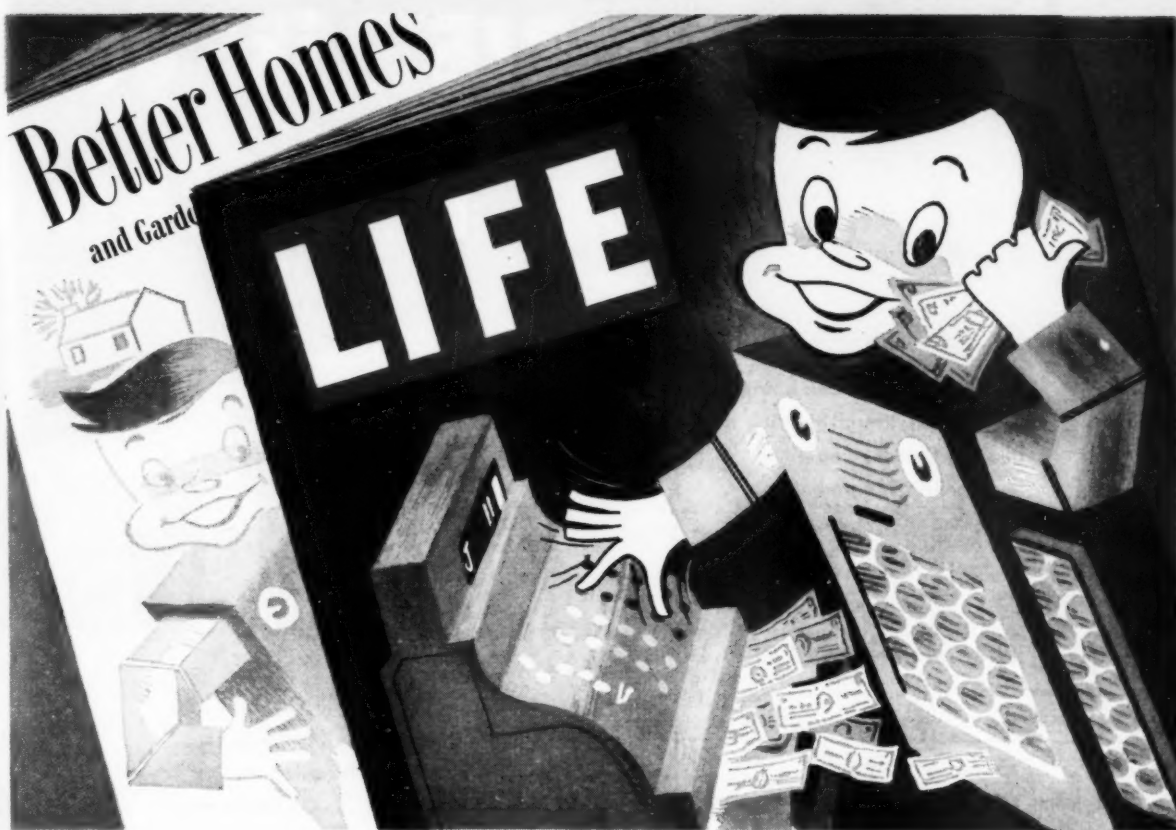
Mar. 7-9—Sheet Metal Contractors' Association of Wisconsin, annual convention. Hotel Schroeder, Milwaukee. Robert Schmieder, Secretary, 225 E. Michigan St., Milwaukee.

Mar. 25-26—Sheet Metal, Air Conditioning & Roofing Contractors' Association of Pennsylvania, annual convention. Broadhead Hotel, Beaver Falls. Earl W. Lieberman, Secretary, 1411 Merchant St., Ambbridge, Pa.

Apr. 19-21—Oil-Heat Institute, annual convention. Conrad Hilton Hotel, Chicago. R. H. L. Becker, Managing Director, 500 5th Ave., New York 36.

Apr. 24-27—Sheet Metal Contractors Association of Illinois, Inc., annual convention. Pere Marquette Hotel, Peoria. Jay E. Harms, Secretary, 1619 N. Sheridan Rd., Peoria.

Apr. 27-30—Sheet Metal Contractors' National Association, annual convention. Mark Hopkins Hotel, San Francisco. J. D. Wilder, Executive Secretary, 170 Division St., Elgin, Ill.



Jiminy Filter says: It's time to

profit from filters...again!



There's a lot more winter ahead . . . and a lot more money to be made selling filters. Right now, a nation-wide advertising campaign—Dave Garroway on TV, full-page ads in *Life* and full-color insertions in *Better Homes and Gardens*—is telling your customers to replace old furnace filters with new **FIBERGLAS* DUST-STOP* AIR FILTERS**. Here's how you can cash-in on this selling splurge:

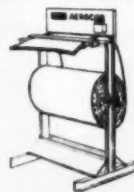
1. Put your Jiminy Filter display back in your windows. He's the selling star in all our advertising and he'll make more sales for you.

2. Call your Fiberglas distributor and ask for your free selling helps—sales letters, window banners, envelope stuffers, etc. They're all free and they'll all sell lots of extra filters for you. Tie-in with this campaign and profit *again* from this booming business. Owens-Corning Fiberglas Corporation, Dept. 35-A, Toledo 1, O.

EXTRA PROFIT OPPORTUNITY

Fiberglas Aerocor*

New all-purpose, do-it-yourself insulation has 101 uses in homes, cars and farms. Attractive display rack holds 24-inch x 100-ft. rolls. Call your Dust-Stop filter supplier for complete details on this new money-maker.



* Fiberglas, Dust-Stop and Aerocor are trade-marks (Reg. U.S. Pat. Off.) of Owens-Corning Fiberglas Corporation.

DUST STOP AIR FILTERS

Why MONCRIEF is your A Better-More Profitable B

Combination Year 'Round Heating and Cooling Units . . . Summer Cooling Equipment.



Year 'Round
Unit equipped
with Gas Burner



Year 'Round
Unit with
'Add-On'
Vestibule



The same
Year 'Round
Unit equipped
with Oil Burner

New for 1955

YEAR 'ROUND COUNTERFLOW AIR CONDITIONING UNITS

2 Most in Demand Sizes

100,000 B.T.U. Heating, 2 Ton Cooling

140,000 B.T.U. Heating, 3 Ton Cooling

5 Ton Cooling with a choice of
Matched Heating Units

(1) 140,000 B.T.U.

(2) 175,000 B.T.U.

(3) 220,000 B.T.U.

Summer Cooling
Units readily connected
to most winter air
conditioning systems.



**Most
MONCRIEF
Units are
Approved
for Either
GAS or
OIL**



Horizontal Furnaces
Gas Fired . . . Oil Fired.



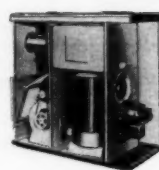
Counterflow
Units



Utility
Units



Gravity
Furnaces



Winter
Air Conditioning Units

Heating and Air Conditioning Equipment
for ANY Size or Type of Installation.

Gas Conversion Burners . . . Oil Conversion
Burners . . . Incinerators . . . Unit Heaters



Unit Heaters
Gas Fired
5 Sizes



Oil Conversion
Burners
6 Sizes



Gas Conversion
Burners
3 Sizes



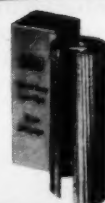
Incinerators
with or without
Gas Burner

Also
MONCRIEF'S
Complete
Line of
SUREFIT®
Carton Packed
Pipe and Fittings

Quicker to Assemble . . . Easier to Handle . . . Quicker to Install
For ANY Type Installation — Small Pipe, Perimeter and Extended
Plenum. In Basement; Crawl Space; Slab Floor; Utility Room and
Over Head installations.

Now Available in Long Lengths . . .

Snap Lock Round Pipe; Snap Lock Wall Stack . . . Snap Lock Duct—
all Carton Packed at NO EXTRA COST to you. Write for complete
new catalog with illustrations, sizes and prices.



ANSWER for Bigger- e Business in '55

MONCRIEF the *NO. 1 CHOICE* of Homeowners...Builders *Everywhere*

Moncrief dealers will have the year 'round jump on any competition in '55 — product-wise, quality-wise and price-wise — with the biggest, and most complete line of equipment ever built to meet modern housing requirements.

Regardless of the requirement — heating or cooling, or combination heating and cooling — as a Moncrief dealer you have the right product that is "tailor-made" to provide the utmost in customer satisfaction.

You also have the outstanding advantage of simplified buying for every customer preference, because virtually every Moncrief Unit gives your customer a choice of fuel. You order the Moncrief unit of suitable capacity. You then install the complete system adding either a gas or oil burner whichever the customer desires.

Why not get in step with Moncrief's 60 years of progress and make more money with the best, — the most-for-the-dollar line available. See your Moncrief jobber today! You have everything to gain.

SOON TO ARRIVE FOR '55

- Counterflow Models of the Year 'Round Air Conditioning Unit, in two desirable sizes — 2 Ton Cooling, 100,000 B.T.U. Heating; 3 Ton Cooling, 140,000 B.T.U. Heating.
- Matched Year 'Round Air Conditioning Units, with 5 Ton Cooling and (1) 140,000 B.T.U., (2) 175,000 B.T.U. or (3) 220,000 B.T.U. Heating.
- New Air Cooled Refrigeration Units, with Compressor located some distance from Cooling Coil.
- 2 New Sizes of Oil Horizontal Furnaces, 84,000 B.T.U. and 220,000 B.T.U. output.
- New Gas Horizontal Furnaces, 84,000 B.T.U. input, with larger sizes to follow shortly.

with MONCRIEF You'll Have

- ... The Most Complete
- ... The Most Versatile
- ... The Most Eye-appealing
- ... The Most Efficient and Economical Line of Equipment AVAILABLE.

YEAR 'ROUND AIR CONDITIONING UNITS . . .
SUMMER COOLING UNITS.

WINTER AIR CONDITIONING UNITS . . .
GRAVITY FURNACES.

UTILITY UNITS . . . COUNTERFLOW UNITS . . .
UNIT HEATERS.

HORIZONTAL FURNACES . . . GAS-OIL
CONVERSION BURNERS . . . INCINERATORS.

See the MONCRIEF Exhibit

in Booths No. 36 and 57
THE INTERNATIONAL HEATING and
VENTILATING EXPOSITION.

*With MONCRIEF You
Furnish EVERYTHING . . .
Heating Units . . . Cooling
Units . . . Duct Work
for ANY Job!*

THE HENRY FURNACE COMPANY • Medina, Ohio

HEATING AND AIR CONDITIONING UNITS

MONCRIEF

SINCE 1895

FURNACE PIPE AND FITTINGS



THE *New* Peerless Electric

BACKWARD CURVE BLOWER CATALOG

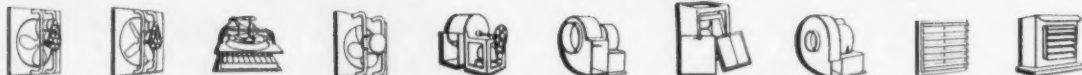
A COMPLETE, CONCISE,
EASY-TO-UNDERSTAND
GUIDE TO BIGGER PROFITS
AND BETTER INSTALLATIONS

This fact-packed 32-page catalog tells you everything you need to know about backward curve blowers in language you can understand. It shows the complete range of sizes from 12½" to 36½"; lists all performance ratings for each size at each motor rating; shows all variable speed ranges; gives you fingertip reference to CFM ratings, outlet velocities, discharges and rotations. These facts, plus the great, new, Peerless Backward Curve Blower, are the keys to bigger jobs, bigger profits, and trouble-free installations. Write for your copy today.



FANS • BLOWERS • MOTORS
PEERLESS ELECTRIC

THE PEERLESS ELECTRIC COMPANY • 1405 W. MARKET ST., WARREN, OHIO

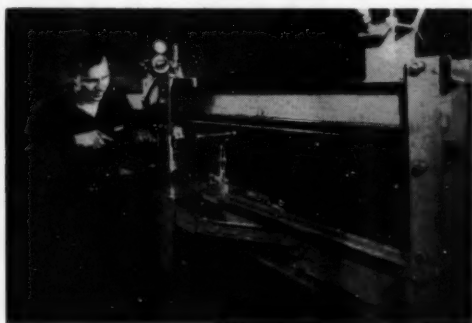


EQUIPMENT DEVELOPMENTS

The latest information on manufacturers' developments is presented here with brief summaries of the applications of these products. For additional product information which is available, see this month's New Literature department.

Duct Seaming Machine

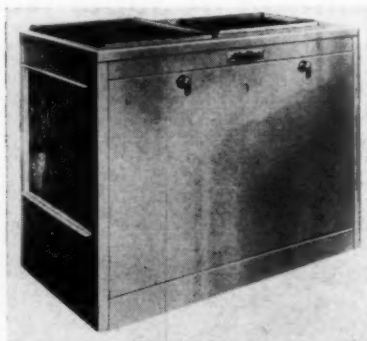
MECHANICAL DUCT seaming machine which seams 20 gage and lighter sheet metal duct in lengths up to 10 ft — Speed Seam Div., M. Brucker, Inc., 820 N. Wolcott Ave., Chicago 22. The device eliminates hand hammering in closing seams, the company states. One



model is designed for rectangular 4 × 8 in. and larger ducts; the other, for 4 in. diameter and larger duct, will also seam rectangular duct. The manufacturer states that a 10 ft duct can be seamed in about six seconds. Elimination of hammering noise and uneven edges or hammer marks are other features.

Year 'round Air Conditioners

NEW LINE of gas and oil fired warm air furnaces ranging from 70,000 to 200,000 Btu capacities in highboy, lowboy, counterflow and suspended models — Conditioned Air Div., Borg-Warner Corp., 310 S.

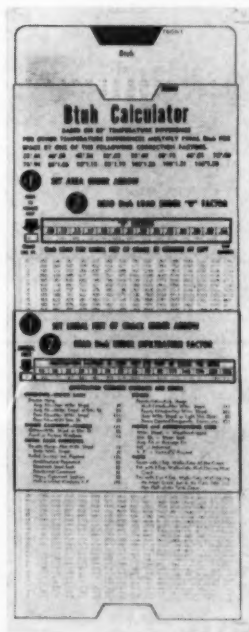


Michigan Ave., Chicago 4. Gas fired line, ranging from 70,000 to 200,000 Btu input, is built around a sectional heat exchanger with built-in draft diverter and fully enclosed controls. Oil fired furnaces range from 80,000 to 165,000 Btu bonnet delivery. Summer

air conditioners with both air cooled (see illustration) and water cooled condensers are available as companion pieces in 2, 3 and 5 ton sizes. Gas and electric water heaters and incinerators also will be included in the products to be merchandised.

Heat Loss Calculator

POCKET-SIZE Btuh calculator designed to aid in figuring heat losses due to window crackage — Paul S. Morton Engineering Services, 609 Bangor Rd., Lawrence, Mich. Made of vinyl plastic, the device operates like a slide rule yet reads like a table, showing correct Btuh under a choice of 28 usage factors without interpolating. Sliding sleeve shows Btuh for any desired lineal feet of window or door crack under a choice of 15 infiltration factors. Common "U" factors and other reference material together with three handy scales appear on the back of the calculator.



Above: Fire Pot

Left: Calculator

Portable Fire Pot for Tinnors

TINNER'S FIRE POT combining all the advantages of an indoor unit yet easily portable for on-the-job use — Turner Brass Works, 821 Park Ave., Sycamore, Ill. "U" type burner and heating chamber are heated with liquified petroleum gas, saving warmup time. Heating chamber accommodates two 8 lb or three 6 lb coppers.

(Continued on page 74)



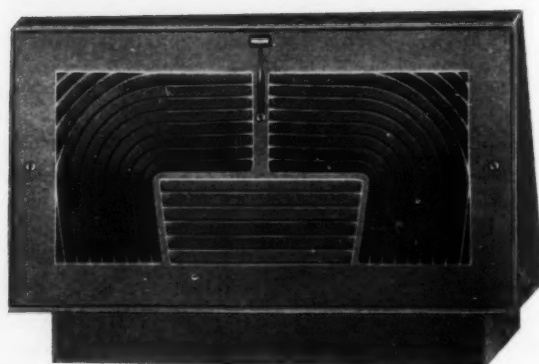
*The FORWARD LOOK
On Earth—Backed by*

NEW U. S. DIFFUZAIR LINE



No. 105 U. S. DIFFUZAIR (Sidewall)

For SIDEWALL or BASE INSTALLATION — The GREATEST AIR-SPREAD (Over 180° at 300 FPM) AND LOWEST RESISTANCE



No. 106 U. S. DIFFUZAIR (Base)

Send for complete information about this amazing new DIFFUZAIR line that gives you better efficiency than ever before in your perimeter installations.

SEE The "New Look" in No. 1000 Base Diffuser (A Super Number)

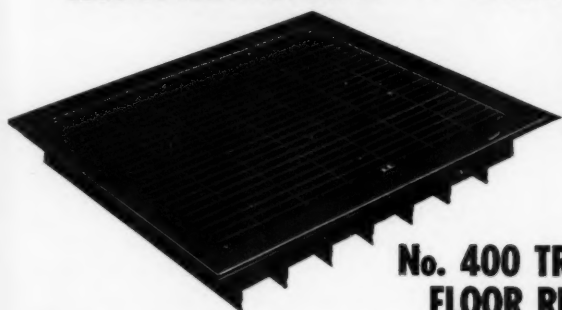


For GREATEST PERFORMANCE — LEAST RESISTANCE
Saves TWO-THIRDS in Labor Cost — One man alone can balance the system.

*At the Greatest Lines
Over 54 Years of Progress*

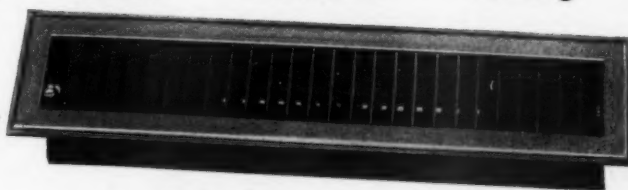


Every Type Register for **RESIDENTIAL and COMMERCIAL INSTALLATIONS** — Floor • Base • Sidewall • Ceiling



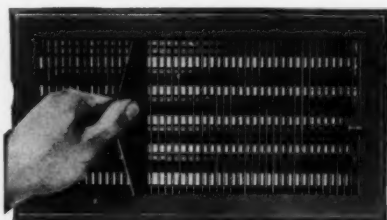
**No. 400 TRUSSTEEL
FLOOR REGISTERS**

Always the best and strongest of all floor registers. 7/16" x 1-15/16" mesh.



No. 410 Floor Diffuser Register

New Sector-Wheel operation this year. You'll like it. Try 'em.

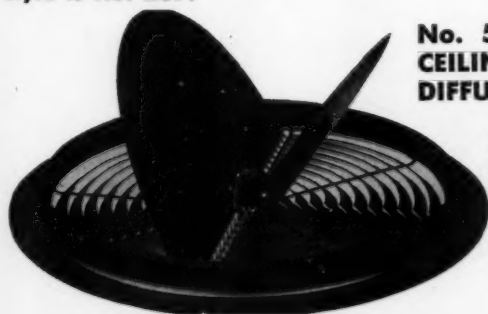
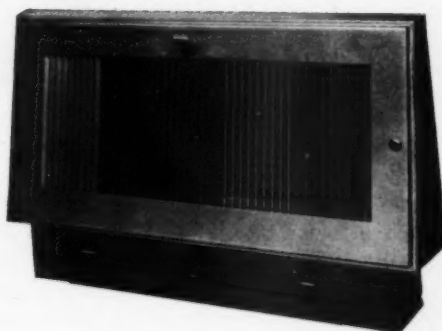


No. 256 A-C REGISTER

MULTIPLE-VALVE, 4-WAY FLOW. Bendable grille bars. Clean-edged interior margins instead of ugly saw-tooth-margins. Base style is No. 267.

**No. 133³/₄
BASE DIFFUSER
REGISTER**

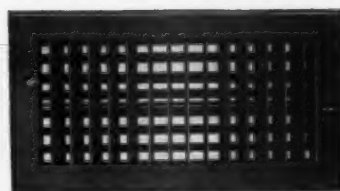
Terrifically successful on slab, crawl-space, perimeter loop, radial, and radial loop systems. 6" high — 10", 12", 14" wide



**No. 500
CEILING
DIFFUSER**

BACK DAMPERS of this efficient diffuser are adjusted by screw-driver after installation. No ball-chain to dangle or break.

**No. 190
SERIES
MULTI-FLEX
and NON-
FLEX
COMMER-
CIAL A-C
REGISTERS**



Front bars vertical — Rear bars horizontal

SEE THEM AT THE SHOW

In Philadelphia — Jan. 24-28
Booth No. 733

NEW No. 55 CATALOG

Now on the press — send for your copy.



UNITED STATES REGISTER COMPANY

BATTLE CREEK, MICHIGAN
MINNEAPOLIS • KANSAS CITY • ALBANY

equipment developments (From page 71)

Gas and air controls provide any volume of flame. Base plate, hose and hose adapter, assembly relief valve, flow check and protection collar are available for conversion to a bench-type furnace. Three sizes are available: LP900 with 11 lb tank, LP901 with 5 lb tank and LP902 with 20 lb tank. All units fit tanks with 3 in. flange valve.

Year 'round Air Conditioner

COMBINATION summer-winter unit using a single duct system to distribute both warm and cool air — United States Air Conditioning Corp., 3300 Como Ave., S.E., Minneapolis 14. For summer operation, bypass damper prevents continuous flow of cool air over the heat ex-



changer to prevent condensation and rust in the furnace. Heating section features chrome alloyed cast iron burners; heat exchangers are heavy gage steel. Internal baffles eliminate hot and cold spots, the manufacturer states. Cooling section utilizes shell and coil type condenser and gas charged thermostatic expansion valve. Spring mounted compressor is hermetically sealed. Entire refrigeration chassis is mounted on slideout channel rails.

Aluminum Packaged Chimney

"BRICK BEAUTY" embossed aluminum chimney packages in brick red with depressed off-white mortar lines — General Products Co., Fredericksburg, Va. Design features a shockproof, high temperature porcelain steel smoke pipe; special draft top which guards against snow, rain and downdrafts; and special flashing with rain groove which reduces the possibility of leakage.

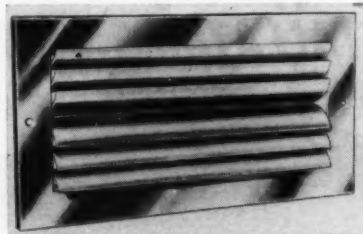
Axial Flow Fan

MODEL TA-14 axial flow fan especially designed for expelling corrosive air, fumes and gases — Industrial Plastic Fabricators, Inc., Norwood, Mass. The 14 in. model has a $\frac{3}{4}$ hp, one or three phase motor mounted

on a steel pedestal; all-plastic impellor blade; and enclosed drive shaft, pulley, belts and sealed bearings. The blower has a range from 260 to 2400 cfm at 875 and 2500 rpm respectively; larger sizes are also available.

High Sidewall and Ceiling Grille

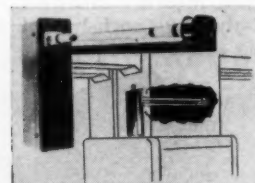
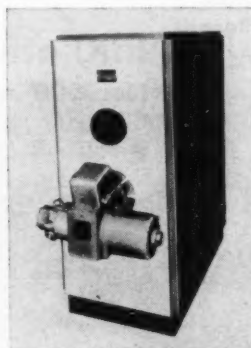
SERIES 200 GRILLE especially designed for distributing both cool and warm air from ceilings and high sidewalls — Titus, Inc., 1304 Broadway, Waterloo, Ia. Applications include overhead forced air systems, high



sidewall installations, replacement of warm air registers when cooling is added and replacement of outlets in problem areas to correct drafts. Grilles are available with or without dampers. Solid section extruded aluminum louvers are wide and curved for efficient air handling, the manufacturer states; each louver can be moved to give one, two or four way diffusion.

Forced Air Furnace

OIL FIRED lowboy forced air furnace assembled with flush or extended jacket — Quiet Automatic Burner Corp., 33-35 Bloomfield Ave., Newark 4, N. J. Three models, with 85,000 Btu, 112,000 Btu and 134,000 Btu output are equipped with high pressure oil burners, electric controls, precast combustion chambers and baked enamel jacket finish.



Above: Air Purifier

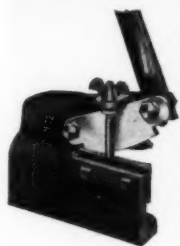
Left: Oil Furnace

Electronic Air Purifier

"SUN-LITE-AIRE" air purifier with special transformer and cold-cathode 12,000 hr lamp which generates germ-killing and ozone-producing ultra-violet rays — Sampson Chemical & Pigment Corp., 2830-36 W.

(Continued on page 222)

CHICAGO STEEL SLITTING SHEAR



For slitting long sheets and for cutting steel bars, band iron, etc. Main frame one piece solid steel with off-set for clearance in cutting long sheets. Capacity 3/16 x 2" bars, 10 gauge sheets. Blades are made of high grade tool steel. Equipped with adjustable hold down



NO. 1 PUNCH

Capacity 3/8" hole through 1/4" iron
Length 34". Wt. 23 lbs. Depth of throat 17 1/8"
Punches and dies 1/8" to 9/16" by 1/64"



**No. 4-B
TINNER'S
PUNCH**

Capacity 1/4" hole through 16 gauge iron
Length 8 1/2". Wt. 3 lbs.
Depth of throat 2"
Punches and dies 1/16" to 9/32" by 1/64"

Also supplied with three punches and three dies, in cardboard carton.

**NO. 91
BENCH PUNCH**

Capacity 1/2" hole through 1/4" iron
3/4" hole through 3/16" iron
2" hole through 1/8" iron
Weight 82 lbs. Depth of throat 5"
Punches and dies 1/8" to 2"

CHANNEL IRON

2 1/2" Flange x 1/4" Web
Angle Iron
2 1/2" x 2 1/2" x 1/4"



NO. 92, 93 and NO. 94 BENCH PUNCH

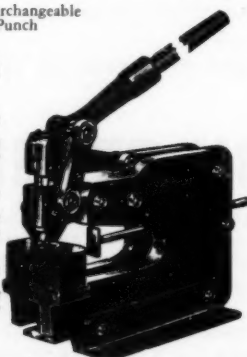
All parts interchangeable with No. 91 Punch

(Use No. 91 punches and dies)

No. 92 Weight 165 lbs.
Depth of throat 10"

No. 93 Weight 500 lbs.
Depth of throat 18"

No. 94 Weight 675 lbs.
Depth of throat 24"



THE BEST IN HAND TOOLS ARE MADE BY

W. A. WHITNEY MFG. CO.

636 RACE STREET



ROCKFORD, ILLINOIS

W. A. Whitney tools are your best bet because they are simple in design, sturdily constructed for the toughest uses, well balanced for easier handling, made from drop forgings of high grade alloy steel on all main parts, heat treated on all wearing parts, and unconditionally guaranteed against defects in material and workmanship. Our trade mark on every tool is your assurance of entire satisfaction and the utmost in service. Please write us today for our complete catalog.



NO. 2 PUNCH

Capacity 5/16" hole through 1/4" iron
Length 23". Wt. 14 lbs. Depth of throat 1-11/16"
Punches and dies 3/32" to 1/2" by 1/64"



CHANNEL IRON PUNCH

(A companion to No. 2 Punch)
Capacity 1/4" hole through 1/4" iron
Length 23". Wt. 17 lbs. Depth of throat 1 7/8"
Punches and dies 3/32" to 1/2" by 1/64"



NO. 6

Skylight Ventilating and Tank Flange Punch (Especially adapted for button punching)
Capacity 1/4" hole through 3/16" iron
Length 26 1/2". Wt. 10 1/2 lbs. Depth of throat 1 1/4"
Punches and dies 1/8" to 9/32" by 1/32"



NO. 8-B PUNCH

Capacity 1/4" hole through 1/4" iron
Length 18 1/2". Wt. 7 1/2 lbs. Depth of throat 2"
Punches and dies 1/16" to 7/16" by 1/64"



**T-12 TINNER'S RIVETING
HAMMER — 1202**



**T-18 TINNER'S SETTING
HAMMER — 1802**

PUNCHES

Whitney Punches For Ball Bearing Screw Punches

No.	Size	Dimensions	Inches
		H. B.	L.
10-1/8	to 1/2	by 32nd	1-3/16
20-1/8	to 11/16	by 32nd	1-3/4
40-3/16	to 1	by 32nd	2-5/16

PUNCHES

Whitney Punches For Lever Punches

No.	Size	Dimensions	Inches
		D.	L.
1	1/8	to 9/16 by 64th	2-3/8
*2	3/32	to 1/2 by 64th	2-3/8
4	1/16	to 9/32 by 64th	1-3/16
5	1/16	to 9/32 by 64th	1-1/4
*6	1/8	to 9/32 by 32nd	2-3/8
7	1/8	to 7/16 by 32nd	1-7/8
7-1/2	1/8	to 7/16 by 32nd	2-3/8
8	1/16	to 7/16 by 64th	1-15/16

*This punch used in No. 2 Channel, Close Corner No. 2, Close Corner Channel, No. 6 and Imperial No. 8.

DIES

Whitney Dies For Ball Bearing Screw Punches

No.	Size	Dimensions	Inches
		D.	H.
10-1/8	to 1/2	by 32nd	13/16
20-1/8	to 11/16	by 32nd	1-1/4
40-3/16	to 1	by 32nd	2-1/8

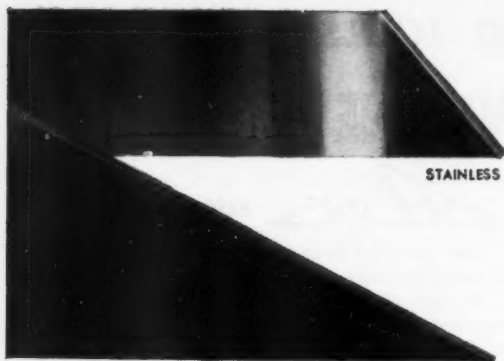
DIES

Whitney Dies For Lever Punches

No.	Size	Dimensions	Inches
		D.	L.
1	1/8	to 9/16 by 64th	1
*2	3/32	to 1/2 by 64th	7/8
4	1/16	to 9/32 by 64th	7/16
5	1/16	to 9/32 by 64th	7/16
*6	1/8	to 9/32 by 32nd	9/16
7	1/8	to 7/16 by 32nd	3/4
1-1/2	1/8	to 7/16 by 32nd	3/4
8	1/16	to 7/16 by 64th	11/16

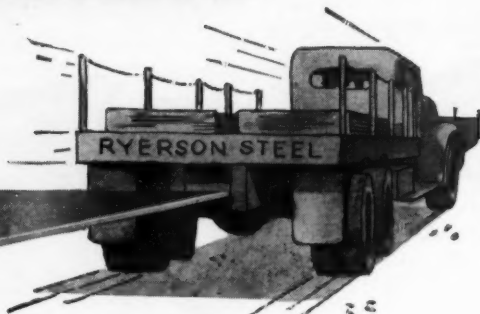
*This die used in No. 2, Channel, and Imperial No. 8.

**This die used in No. 6, Close Corner No. 2 and Close Corner Channel. When ordering punches be sure to specify size of punches and number of tool in which punch is to be used.

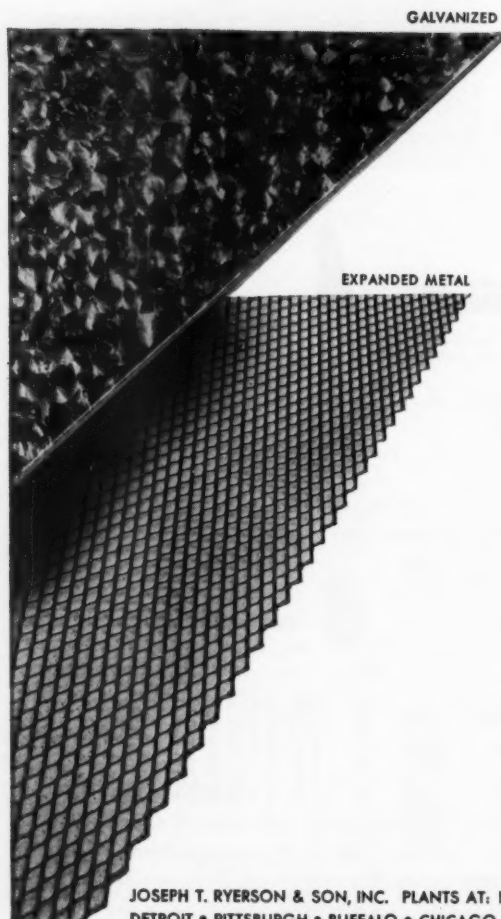


HOT ROLLED

COLD ROLLED



Sheets Quickly



GALVANIZED

EXPANDED METAL

more than 20 kinds in stock

You get the sheets you need without delay when you call your nearby Ryerson plant. That's because we carry the world's largest stocks—an unusually wide range of gauges and pattern sizes in more than 20 types. Whether you need a single sheet or a truck-load, pattern size or cut-to-order, we can assure you of immediate delivery.

Ryerson galvanized sheets are a special tight-coated type that form readily without peeling or flaking—are bright and clean with uniform spangle. Workable Ryerson stainless is all time-tested Allegheny Metal, with the high quality finish that will please your most particular customers. Ry-Ex Expanded Metal is available in two types, standard and flattened, both types with all sharp edges removed.

MACHINERY AND TOOLS. And when you need metal-working machinery or tools, again you can depend on Ryerson. Your nearby Ryerson plant supplies—and unreservedly guarantees—every type used by sheet metal shops.

So, for fast action on your every requirement . . . call Ryerson.

RYERSON STEEL

Principal products: Carbon, alloy and stainless steel, bars and band iron, angles and channels (black and galvanized), welded and seamless tubing, plates, sheets and strip, etc.

JOSEPH T. RYERSON & SON, INC. PLANTS AT: NEW YORK • BOSTON • PHILADELPHIA • CHARLOTTE, N. C. • CINCINNATI • CLEVELAND
DETROIT • PITTSBURGH • BUFFALO • CHICAGO • MILWAUKEE • ST. LOUIS • LOS ANGELES • SAN FRANCISCO • SPOKANE • SEATTLE



Eye Appeal — A Big Sales Tool

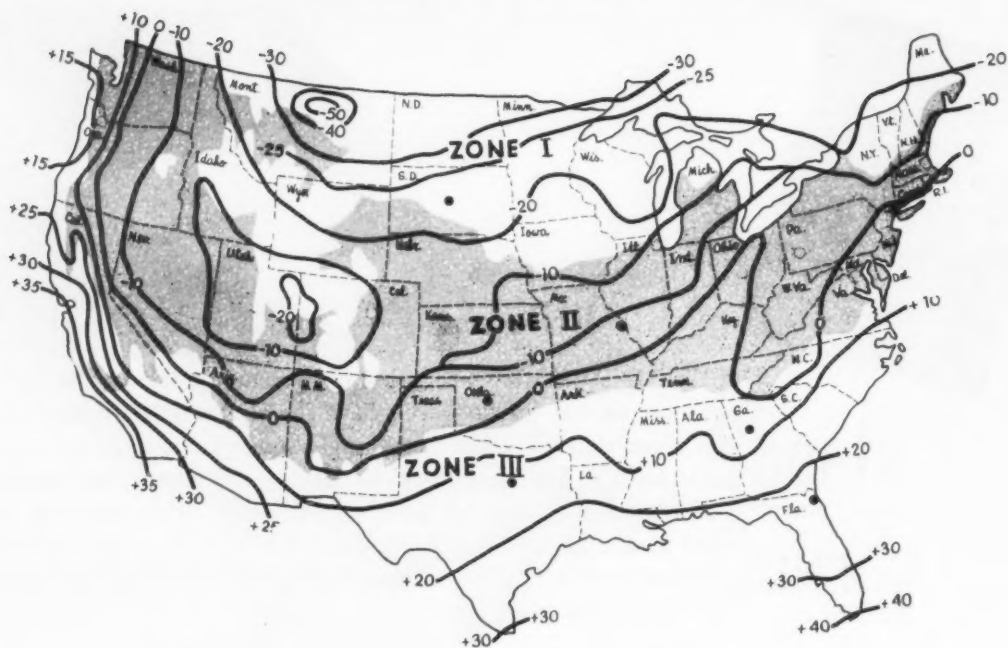
MANY INDUSTRIES producing equipment for sale to the home owner or to commercial establishments have found that buyers demand a product which not only performs better and more economically than last year's model but also has the ability to harmonize well with its surroundings. This is as true in the warm air heating, residential air conditioning and sheet metal field as in any other business. All too often, a prospect will make his selection solely on the appearance of the product rather than on consideration of its ability to perform.

Recently we talked with a dealer who has had the satisfaction of seeing his business show a sizable increase each year during the past five years. When asked how he located his prospects ahead of other dealers covering the same territory, he replied that he was seldom the first salesman to call on the prospect.

This dealer went on to explain how he sells the prospect on the product he represents. His sales approach is built around the literature he carries in his briefcase. He carries literature not only on his own product but on competing lines as well. Whenever a prospect indicates interest in a certain make furnace, air conditioner or other product, he takes out the literature covering that particular model and points out its features. Then he opens the literature on the product he recommends and points out that his product compares favorably in all ways with the other make.

To every question the prospect asks, the dealer gives an answer which brings out the fact that either product can serve him well. Then when the prospect has reached the point where he can no longer expect to find one piece of equipment superior to the other performance-wise, he is ripe to answer the deciding question for himself. At this point, the dealer takes out the best picture of the competing equipment, lays it in front of the prospect and asks, "Would you rather have this plain, unattractive model, or" (as he lays down the attractive, well illustrated folder describing his product) "do you prefer THIS beautifully designed, modern unit?"

Almost invariably, the dealer says, the prospect picks the product he recommends and he credits eye appeal with winning the sale. Modern styling is evidence that the manufacturer is keeping up with present day trends. Modern styling also builds PRIDE OF OWNERSHIP in every product and gives the owner the confidence he has a right to expect because the average buyer of our industry's products has very little technical knowledge of how the equipment functions, and he is inclined to believe what he can see. For this reason, eye appeal is often the deciding factor in closing a sale.



1 CITIES LOCATED in 7 widely varying climates (as indicated by the dots on the map) are used as a basis for calculating heat loads and operating costs for year 'round air conditioning equipment. The zones shown are for winter design temperatures

Cutting Air Conditioning Costs With Insulation

. . . is a practical approach to the use of smaller equipment in residential applications as shown by this study for 7 cities where representative climatic conditions parallel those found in most parts of the U. S.

By H. T. Gilkey and D. R. Bahnfleth
University of Illinois

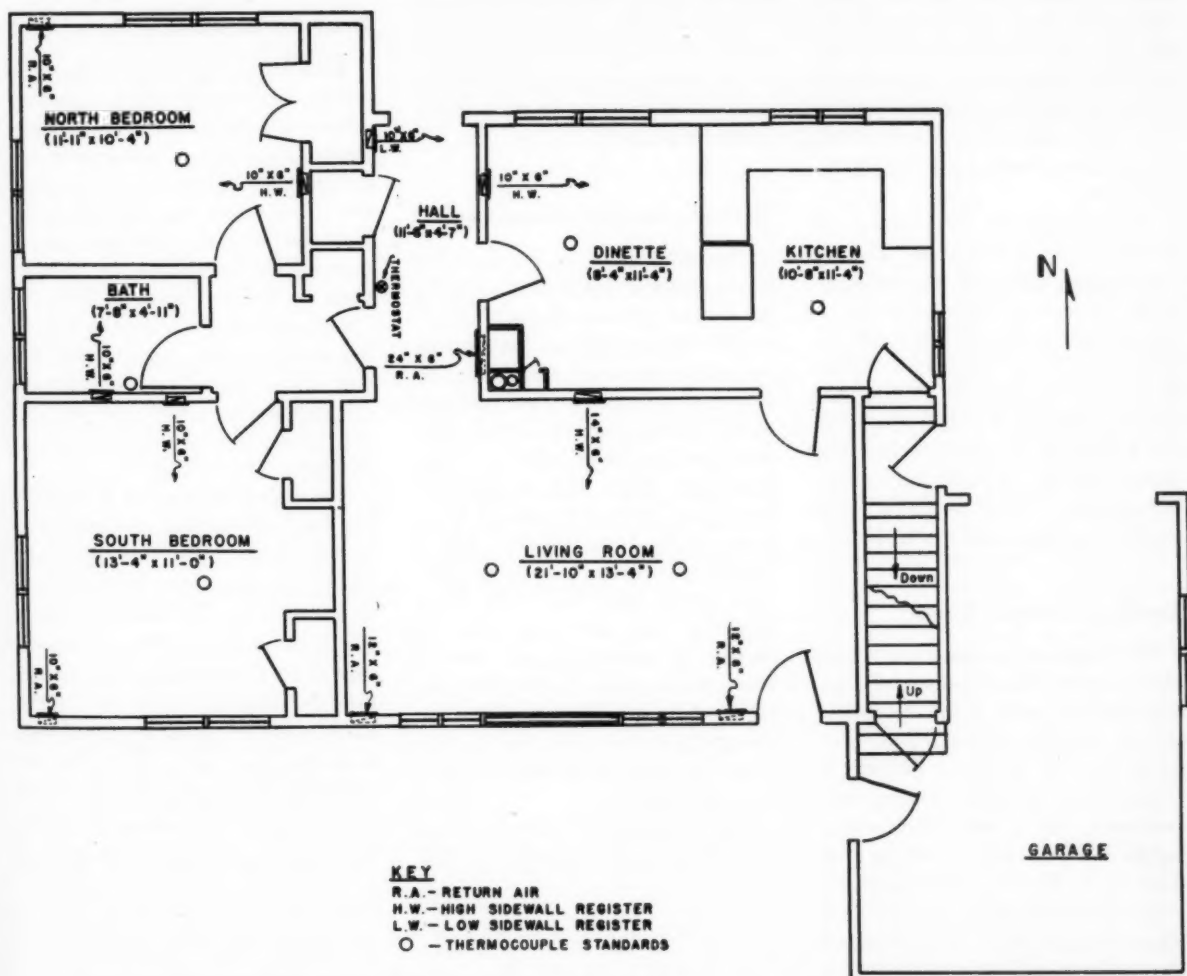
THE EFFECTIVENESS of insulation in reducing the cooling load of a small residence was discussed in a previous article¹, where it was pointed out that the expenditure of \$240.00 for insulation could result in a saving of \$840.00 on the initial cost of the equipment necessary to cool the house.

This article will discuss the equipment and operating costs for both cooling and heating a small residence in several different climates. For instance, the costs will be estimated for the same residence located in climates with from 1000 to 7000 heating degree days and from 200 to 1600 cool-

ing degree days. The value of mineral wool insulation under these conditions will be shown by assuming: a) that the residence is uninsulated, and b) that both the walls and ceiling are insulated.

A Practical Answer

The popularity of air conditioning for the home has introduced new factors in residential construction,



2 CALCULATIONS WERE MADE to find out how well insulation reduces heating and cooling loads in a residence identical to the one shown

“... the degree day for cooling has been used to estimate the cost of operation.”

and it has re-emphasized the need for the use of good practice in other phases of home planning and design. As steps are taken to reduce the cooling load of residences by the use of fixed and shaded windows and the use of smaller windows and heat-absorbing glass in those exposures where large solar gains may be expected, the use of adequate and properly installed insulation will become relatively more important. Of course, using adequate insulation in the walls and the ceiling of a residence will materially reduce the cooling load of today's homes, but as the other sources of heat gain are reduced, the heat transmitted through the walls and ceiling becomes an increasingly larger proportion of the total cooling load. The only practical way of reducing these loads is by the use of insulation.

To illustrate the effectiveness of insulation in reducing the heating and cooling loads and the operating costs, calculations were made for a typical small residence. The residence upon which the calculations were based was identical to Warm Air Heating Research Residence No. 2 at the University of Illinois except for minor changes in wall and ceiling construction. These changes were made to accommodate the insulation.

Details of Sample House

The residence is a one-story, frame structure with a large amount of glass exposure and with a full basement. As can be seen from the floor plan (Fig. 2), the residence contains a living room, a kitchen-dinette, two bedrooms, and a bath. The ceiling height is 8.5 ft, and the ceiling area 1040 sq ft. The net wall area of the residence is 848 sq ft, and the total glass area 273 sq ft. The volume of the residence is 8146 cu ft, including all closets.

For the purpose of calculating the

cooling load on the residence, it has been assumed that the windows on the east and west exposures are equipped with canvas awnings, and that the south exposure of the residence is shaded by a roof overhang. Except for one large picture window in the living room, which is fixed in place, the windows are single glazed. The doors are of conventional wood and glass construction. For the purpose of calculating the heat loss of the residence, it is assumed that all of the windows are equipped with tight-fitting storm sash, and that the exterior doors are equipped with storm doors. The roof is of conventional gable construction. The attic space is ventilated at both gable ends and by a continuous opening underneath the eaves.

Methods for Calculating Loads

The heat gain of the residence has been calculated for each locality by the method given in Manual No. 11² of the National Warm Air Heating and Air Conditioning Association. An indoor temperature of 75 F was used as the indoor design condition. The residence is to be occupied by a family of two adults. This is somewhat lower than average occupancy for a house of this type; however, had a greater occupancy load been used, there would have been little effect upon the total heat gain. For the purpose of calculating the sensible heat gain, a value of 300 Btuh per occupant is used. The capacity of the equipment necessary to cool the residence was determined from the heat gain calculation.

The estimation of operation cost for cooling was based upon a method

recently published in *Heating, Piping & Air Conditioning*³. In addition to knowing the heat gain of the residence, it was necessary to have information concerning both the severity and length of the cooling season. The severity of an average season for each locality was determined⁴ from cooling degree day information. The degree day for cooling has been arbitrarily defined as the difference between the mean outdoor temperature and 70 F. Thus, for a day on which the maximum outdoor temperature was 95 F and the minimum outdoor temperature was 75 F, the mean temperature would be 85 F, and that day would represent 15 cooling degree days. The length of the cooling season was estimated from tabulated information for each locality.

Basis for Estimating Costs

Knowing the heat gain of the residence, the severity of the cooling season, and the length of the cooling season, the hours of compressor operation could be estimated. The actual cost of operation was then calculated from the hours of compressor operation and the power input to the compressor. It was assumed that the blower operated continuously during the entire cooling season, and this cost is included in the values given. No estimate of water cost was attempted because of the various condensing methods available.

The degree day method of estimating fuel consumption and operating cost for heating has been used and proved accurate for a large number of installations. The heating degree day is based upon a datum temperature of 65 F, and the number of degree days for any given day is the mean outdoor temperature subtracted from 65. Thus, for a day when the minimum temperature is 10 F and the maximum temperature is 30 F, the mean temperature is 20 F, and

“... steps have been taken to reduce the cooling load of residences in different locations.”

the number of degree days is 45. The total number of degree days is the sum of the degree days for each day throughout the entire heating season.

The cost of heating a building depends upon its construction and its heat loss⁵, the severity of the climate in which it is located, the length of the heating season, and the cost of the fuel used for heating. The length and severity of the heating season are included in the total number of degree days for any locality. Consequently, the construction and heat loss of the residence and the fuel costs are the variables considered in this study.

Two Conditions Evaluated

The cooling and heating costs are estimated for the residence in seven localities under two conditions of insulation. The two insulation combinations considered were:

- 1) No insulation in walls or ceiling.
- 2) Three in. of mineral wool insulation in the walls and 4 in. of insulation in the ceiling.

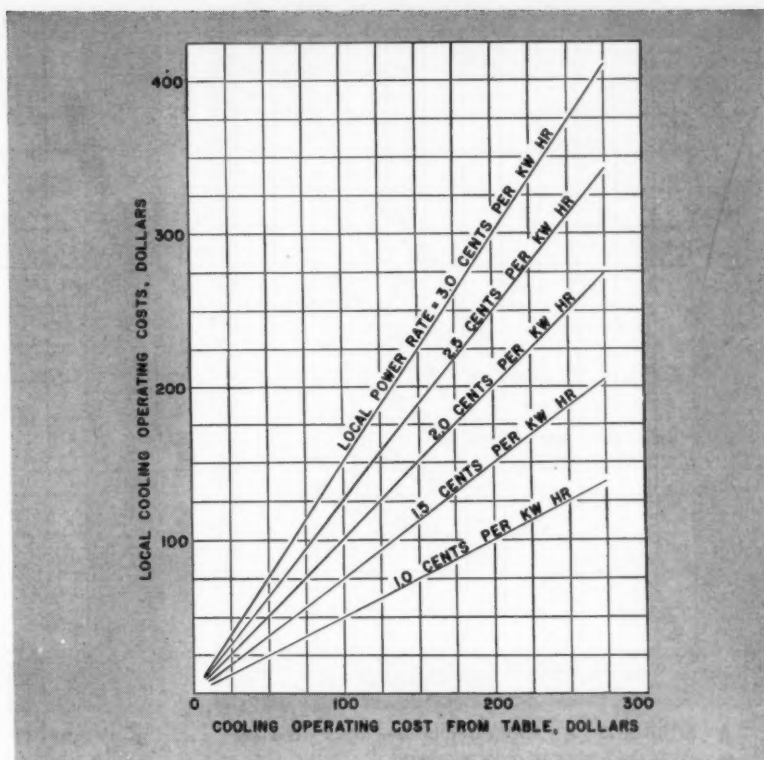
Only the insulation is varied for this study; all other construction features are considered as constants. It should be mentioned however, that all windows except the large picture window in the living room are considered as single glazed windows for the computation of the cooling loads. For heating loads, all windows are calculated as being equipped with storm sash and the doors fitted with storm doors.

The effect of the insulation on the

TABLE 1—COEFFICIENTS of heat transmission for various insulation thicknesses

	Insulation Thickness, (in.)	Coefficient of Heat Transmission, (Btu/h/sq ft/F)
Wall	0	0.25
	3	0.09
Ceiling	0	0.61
	4	0.09

Note: Wall construction is cedar shingles, ship-lap sheathing on 2 x 4 in. studs, and 1/2 in. plywood panels.
Ceiling construction is gypsum lath and plaster placed on 2 x 4 in. joists.
Coefficients of heat transmission taken from Manual No. 3 of the National Warm Air Heating and Air Conditioning Association.



3 CORRECTION CHART for determining power costs other than 2 cents per kwhr

coefficients of heat transmission—the *U* factor—is shown in Table 1 for the wall and ceiling construction considered. Although the other materials used in the construction of a residence will have some effect on the heat flow through the walls and ceiling, insulation has a far greater effect on it than do other common building materials. Here a conservative *U* value has been used.

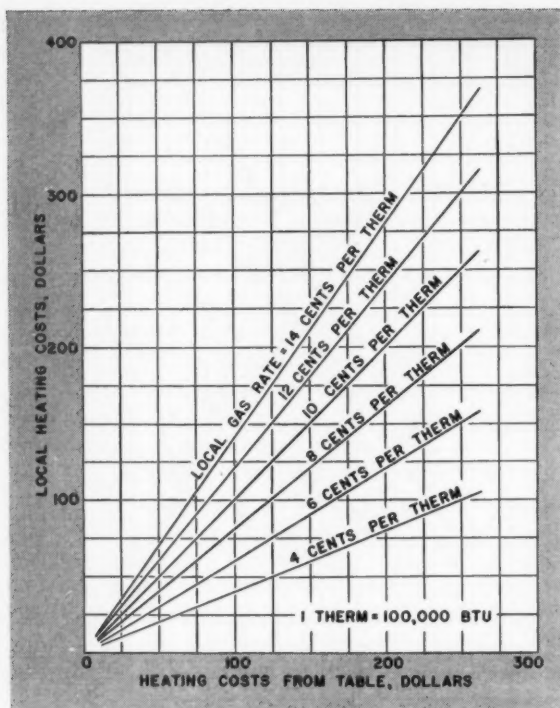
Consideration Given Weather

Not only does the weather vary widely from one part of the country to another, but it can also vary from season to season in any locality. This is particularly true of the cooling season. For instance, in many parts of the country the summers of 1952 and 1953 were above normal so far as cooling is concerned, and in some places the summer of 1954 has

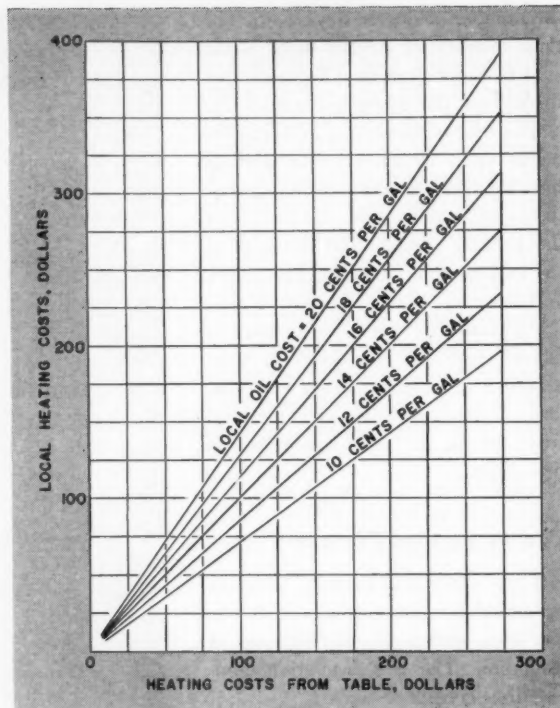
TABLE 2—CLIMATIC VARIABLES for cities considered in study

City	Cooling					Heating	
	Design Temp. (F)	Daily Temp. Range ^a (F)	Mean Daily Temp. ^b (F)	Cooling Degree Days ^c (per season)	Length of Season, (days)	Design Temp. (F)	Heating Degree Days ^d (per season)
Atlanta, Ga.	95	20	85.0	754	120	10	2985
Dallas, Tex.	100	20	90.0	1416	150	10	2367
Jacksonville, Fla.	95	15	87.5	1577	180	25	1185
New York, N. Y.	95	15	87.5	225	70	0	5280
Oklahoma City, Okla.	100	20	90.0	907	120	-5	3670
St. Louis, Mo.	95	20	85.0	739	120	-5	4596
Pierre, S. D.	95	20	85.0	268	70	-20	7283

Notes: a) Daily temperature range equals maximum outdoor temperature minus minimum outdoor temperature for a design day.
b) Mean daily temperature equals the average of the maximum and minimum outdoor temperatures on a design day.
c) Cooling degree days per day equals mean daily temperature minus 70 F. Seasonal total is sum of degree days per day.
d) Heating degree days per day equals mean daily temperature (average of maximum and minimum temperatures) subtracted from 65. Seasonal total is sum of degree days per day.



4 CORRECTION CHART for heating costs when gas is used as the fuel at 10 cents per therm



5 CORRECTION CHART for heating costs when oil is used as the fuel at 14 cents per gal

proved to be even more severe. Yet the summers of 1950 and 1951 were comparatively mild, and the cooling requirements were below normal for these years. The predictions of operation costs contained in this article are based upon so-called normal conditions, and it would not be unreasonable to expect that the predicted hours of operation during an above average year could be exceeded by 25 percent.

Although some variation from normal will exist for heating seasons, it will not be as great as the variation for cooling seasons. The percentage variation from one heating season to the next will be found to be relatively small. Consequently, the prediction of heating costs can be considered to be reasonably accurate.

The climatic variables for seven cities are given in Table 2. These cities were chosen as examples because they are representative of the weather conditions experienced in various sections of the country. The conditions which affect heating and cooling are listed separately, and

their significance will be discussed separately.

Use Daily Temperature Range

The design temperature conditions are used to determine the capacity of both the heating and cooling units. They are assumed to occur on a design day, and are rarely exceeded. For cooling, the daily temperature range is of importance since the cooling off of a house at night reduces the amount of mechanical cooling necessary to provide comfort the following day. So that this daily temperature range can be considered in the heat gain calculations, the country has been divided into regions of similar temperature range. In cities having a medium daily temperature range, the minimum temperature will usually be 20 F less than the maximum on a design day. In regions of low daily temperature range, this variation will be 15 F.

The degree day for both heating and cooling has already been defined. If we know the design conditions

for any locality, and if we know the capacity of the heating or cooling unit, the hours of unit operation can be predicted from the number of degree days. When these factors are known, the operating costs can be predicted from the power or fuel inputs and their rates.

Estimating Costs for Cooling

The operating cost for cooling is shown in Table 3 for each insulation combination in each city considered. All electrical costs are based upon a power rate of 2 cents per kw-hr. It is assumed that the blower operates continuously during the entire cooling season. For power rates other than 2 cents per kw-hr, the predicted operating cost may be corrected by the use of Fig. 3.

The savings which might be expected by the use of insulation can be illustrated by considering the climatic conditions for Atlanta, Ga. In this locality the design temperature for cooling is 95 F, and the daily temperature range is 20 degrees

(medium). In an average summer there will be 754 cooling degree days. The uninsulated residence would require a 5 ton cooling unit and would operate for a total of 1030 hr during the 120 day cooling season. The operating cost for this condition would be \$184.40. For the fully insulated residence with 3 in. of insulation in the walls and 4 in. of insulation in the ceiling, a 2 ton cooling unit would be required, and would operate 930 hr at a cost of \$67.00.

Thus, the use of 4 in. of insulation in the ceiling and 3 in. of insulation placed in the walls would reduce the operating cost \$117.40 during one average cooling season. It has been pointed out previously that any cooling season may deviate as much as 25 percent from the average. Consequently, the saving by the use of insulation may be as much as \$145.00. In addition, the smaller cooling unit permitted by the use of insulation will cost about \$700.00 less than the 5 ton cooling unit required for an uninsulated residence.

The maximum saving shown would be experienced in Jacksonville, Fla. where the cooling season is approximately 180 days. This saving would amount to about \$247.20 in this locality. The minimum saving would be expected to occur in Pierre, S. D. where the cooling season is relatively short, even though the design temperature conditions are no less severe than in many other localities.

Estimating Costs for Heating

The operating cost for heating is shown in Table 4 for each insulation combination in each city considered. All heating costs are based upon a fuel rate of 10 cents per therm (100,000 Btu). Although this rate is higher than that which would be experienced in many localities for heating with gas, it corresponds to 140,000 Btu per gal oil at a price of 14 cents per gal. Where gas is used as the fuel for heating, the conversion to local rates can be made by the use of Fig. 4. Where oil is used, this conversion may be made by using Fig. 5.

TABLE 3—EQUIPMENT AND operating costs for cooling

City	Insulation Thickness, (in.)		Design Heat Gain, (Btuh)	Cooling Unit Capacity, (tons)	Retail Price ^a	Hours of Compressor Operation	Operating Cost ^b
	Ceiling	Walls					
Atlanta, Ga.	0	0	63,490	5	\$1700.00	1030	\$184.40
	4	3	22,450	2	1000.00	930	67.00
Dallas, Tex.	0	0	68,760	5	1700.00	1560	267.00
	4	3	24,470	2	1000.00	1630	108.00
Jacksonville, Fla.	0	0	71,240	6	1900.00	1760	366.00
	4	3	23,850	2	1000.00	1750	118.80
New York, N. Y.	0	0	71,240	6	1900.00	250	73.00
	4	3	23,850	2	1000.00	250	23.80
Oklahoma City, Okla.	0	0	68,760	5	1700.00	1000	180.40
	4	3	24,470	2	1000.00	1040	72.80
St. Louis, Mo.	0	0	63,490	5	1700.00	1010	181.80
	4	3	22,450	2	1000.00	910	66.00
Pierre, S. D.	0	0	63,490	5	1700.00	370	76.60
	4	3	22,450	2	1000.00	331	28.00

Note: a) Factory retail price. Based on average of three available units. Does not include shipping costs.
b) Cost based upon power rate of 2 cents per kw hr.

TABLE 4—EQUIPMENT AND operating costs for heating

City	Insulation Thickness, (in.)		Interior Wall Surf. Temp. ^a (F)	Heat Loss, (Btuh)	Fuel Input Rate, (Btuh)	Retail Price ^b	Operating Cost ^c
	Ceiling	Walls					
Atlanta, Ga.	0	0	62.5	65,100	81,400	\$275.00	\$ 97.60
	4	3	68.5	24,000	30,000	250.00	35.80
Dallas, Tex.	0	0	62.5	65,100	81,400	275.00	77.50
	4	3	68.5	24,000	30,000	250.00	28.40
Jacksonville, Fla.	0	9	64.8	48,800	61,000	250.00	38.80
	4	3	69.4	18,000	22,500	250.00	14.20
New York, N. Y.	0	0	61.0	76,000	95,000	300.00	173.00
	4	3	68.0	28,000	35,000	250.00	63.40
Oklahoma City, Okla.	0	0	60.3	81,400	102,000	300.00	120.00
	4	3	67.8	30,000	37,500	250.00	44.00
St. Louis, Mo.	0	0	60.3	81,400	102,000	300.00	150.00
	4	3	67.8	30,000	37,500	250.00	55.00
Pierre, S. D.	0	0	58.0	97,700	122,000	330.00	238.00
	4	3	67.0	36,000	45,000	250.00	87.50

Note: a) Based on outdoor design temperature for each locality and indoor temperature of 72.0 F.
b) Factory retail price based upon average of three available furnaces; 60,000 Btu input smallest forced-air furnace generally available.
c) Operating cost based upon fuel cost of 10 cents per 100,000 Btu.

TABLE 5—SAVINGS IN EQUIPMENT costs and year 'round operating costs effected by the use of mineral wool insulation

City	Insulation Thickness, (in.)		Equipment Costs ^a					
			Cooling		Heating		Year 'round	
	Ceiling	Walls	Cost	Saving	Cost	Saving	Cost	Saving
Atlanta, Ga.	0	0	\$1700.00	—	\$275.00	—	\$1975.00	—
	4	3	1000.00	\$700.00	250.00	\$25.00	1250.00	\$725.00
Dallas, Tex.	0	0	1700.00	—	275.00	—	1975.00	—
	4	3	1000.00	700.00	250.00	25.00	1250.00	725.00
Jacksonville, Fla.	0	0	1900.00	—	250.00	—	2150.00	—
	4	3	1000.00	900.00	250.00	—	1250.00	900.00
New York, N. Y.	0	0	1900.00	—	300.00	—	2200.00	—
	4	3	1000.00	900.00	250.00	50.00	1250.00	950.00
Oklahoma City, Okla.	0	0	1700.00	—	300.00	—	2000.00	—
	4	3	1000.00	700.00	250.00	50.00	1250.00	750.00
St. Louis, Mo.	0	0	1700.00	—	300.00	—	2000.00	—
	4	3	1000.00	700.00	250.00	50.00	1250.00	750.00
Pierre, S. D.	0	0	1700.00	—	330.00	—	2030.00	—
	4	3	1000.00	700.00	250.00	80.00	1250.00	780.00

City	Insulation Thickness, (in.)		Operating Costs					
			Cooling		Heating		Year 'round	
	Ceiling	Walls	Cost	Saving	Cost	Saving	Cost	Saving
Atlanta, Ga.	0	0	\$184.40	—	\$ 97.60	—	\$282.00	—
	4	3	67.00	\$117.40	35.80	\$61.80	102.80	\$179.20
Dallas, Tex.	0	0	267.00	—	77.50	—	344.50	—
	4	3	108.00	159.00	28.40	49.10	136.40	208.10
Jacksonville, Fla.	0	0	366.00	—	38.80	—	404.80	—
	4	3	118.80	247.20	14.20	24.60	133.00	271.80
New York, N. Y.	0	0	73.00	—	173.00	—	246.00	—
	4	3	23.80	49.20	63.40	109.60	87.20	158.80
Oklahoma City, Okla.	0	0	180.40	—	120.00	—	300.40	—
	4	3	72.80	107.60	44.00	76.00	116.80	183.60
St. Louis, Mo.	0	0	181.80	—	150.00	—	331.80	—
	4	3	66.00	115.80	55.00	95.00	121.00	210.80
Pierre, S. D.	0	0	76.60	—	238.00	—	314.60	—
	4	3	28.00	48.60	87.50	150.50	115.50	199.10

Note: a) Does not include cost of duct systems.

It is to be expected that considerably less money will be saved during the heating season by the use of insulation in Atlanta than would be saved during the cooling season. Although this is true, the cost of heating the uninsulated residence will be \$97.60, over \$60.00 more than the \$35.80 it would cost to heat the fully insulated residence.

The maximum saving due to insulation would be experienced in Pierre, S. D. where it would cost \$238.00 to heat the uninsulated residence, and \$87.50 to heat the fully insulated residence. The minimum saving on heating cost would occur in Jacksonville, Fla. where the cost of heating the fully insulated residence would be \$14.20

Annual Savings Shown

The total cost of year around air conditioning, heating in winter and cooling in summer, may be obtained by adding the costs for each season in each locality. If we again consider the case of Atlanta, Ga., we find that the cost of heating and cooling the uninsulated residence would be approximately \$282.00 for an average year. If 4 in. of insulation were placed in the ceiling and 3 in. of insulation placed in the walls, the total cost for the year would be \$102.80. Thus, the use of insulation would give a saving of \$179.20 for a year. This saving is greater than the total operating cost for the year with the residence fully insulated. The savings for the other cities are shown in Table 5.

The cost of insulating the residence is estimated to be \$236.00 This figure is based upon labor costs of \$0.03 per sq ft of insulation installed during the construction of the residence, and materials costs of \$0.095 per sq ft for 3 in. thick insulation with vapor barrier attached. The total cost of insulating the walls, 848 sq ft, would be \$106.00, and the cost of insulating the ceiling, 1040 sq ft, would be \$130.00. The same type of insulation could be installed in an existing home, but at a slightly higher cost.

Although the cost of insulating the

residence completely could be paid by the savings in operating costs during one year in only one city, Jacksonville, the insulation could be paid for in any three consecutive seasons in all of the other cities considered. Even though the cost of water for cooling the air conditioning units has not been considered, the smaller units would use less water, resulting in additional savings.

Savings in Equipment Costs

In addition to the savings in operating costs effected by the use of insulation, a saving in the first cost of the air conditioning equipment is also realized. The saving in first cost of the cooling unit is of most significance, ranging from \$700.00 to \$900.00 in the cities studied, as shown in Table 5. This saving is based upon the average retail price of three available water cooled units in each size, not including shipping charges to each city or installation costs. The average prices of the 6 and 5 ton units required for the uninsulated residence are \$1900.00 and \$1700.00, respectively. The average price of the 2 ton unit required to cool the insulated residence is \$1000.00. This saving will more than pay the \$236.00 cost of insulating the residence. Further savings in cooling equipment will be experienced when a water saving device is used since the smaller cooling unit for the insulated home will require smaller, less expensive equipment.

The saving in first cost of the heating equipment in each city is tabulated in Table 5. The saving in first cost of the furnaces is greatest in Pierre, S. D., where a saving of \$80.00 is possible and is least in Jacksonville, Fla. where the heating cost would be the same because of the size of the equipment. The furnace costs are based upon the average price of three available furnaces in each size needed. The fact that no saving results in Jacksonville is because a 60,000 Btuh input furnace is the smallest forced air furnace for which prices were available. However, even if a forced air furnace

with a smaller input could be obtained, the saving in cost would probably not amount to \$50.00.

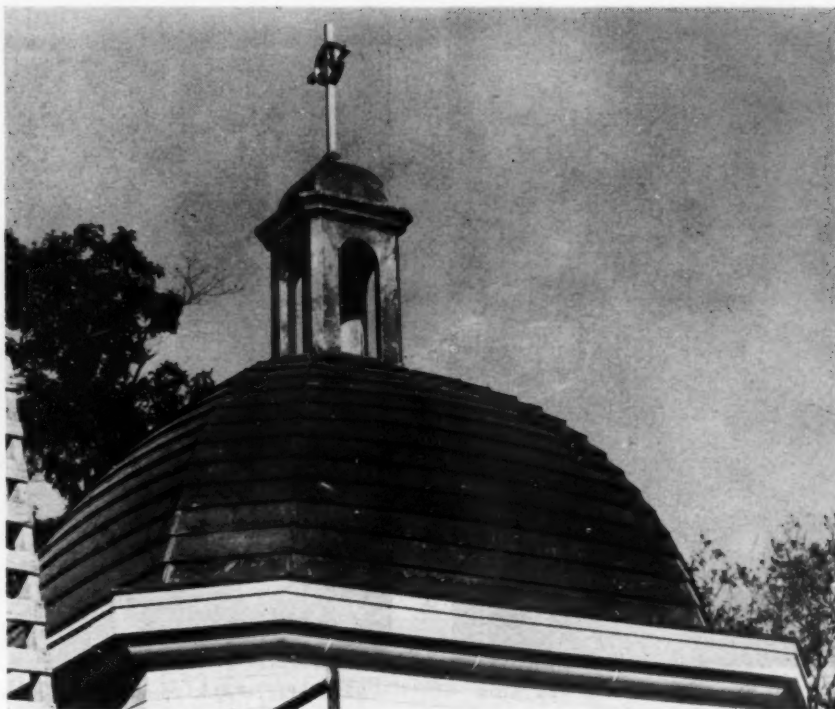
The total savings in first cost of both heating and cooling equipment would then range from \$725.00 to \$950.00, as shown in Table 5.

Comfort As Well

Another important consideration in the use of insulation in a residence is the increased comfort which results. In Table 4 the approximate interior wall surface temperatures that would be experienced at design conditions during heating with and without insulation have been shown. For example, in Pierre, S. D., where the winter temperatures are most severe, the interior wall surface temperature would be 58 F when the outdoor temperature dropped to -20 F with the walls uninsulated. With 3 in. of insulation in the walls at -20 F the interior wall surface temperatures would be 67 F, an increase of 11 F over the uninsulated condition. In Jacksonville, Fla., where the mildest winter temperatures occur, the increase in surface temperature would be 4.6 F. With the higher surface temperatures when the walls are fully insulated, there will be less tendency for cold down drafts to occur at the exterior walls. Also, because surface temperatures are warmer, occupants of a room will lose less heat by radiation and will consequently enjoy a greater degree of comfort.

References

- 1) Gilkey, H. T., and D. R. Bahnfleth, How Much Does Insulation Save in Air Conditioning a Home? American Artisan, March 1954.
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- 3) Gilman, S. F., L. A. Hall, and E. P. Palmetier, The Operating Cost of Residential Cooling Equipment, ASHVE Journal Section of Heating, Piping & Air Conditioning, April 1954.
- 4) Summer Degree Days, Heating and Ventilating, July 1954.
- 5) Manual No. 3, Calculating Heat Losses, National Warm Air Heating and Air Conditioning Association, Cleveland, Ohio, 4th edn., 1953.



Copper, Brass, Stainless Steel Blend in Modern Cupola

. . . which was completely finished
in the shop before being raised into place.

Drive cleats on the hips were used
to allow for expansion and contraction

IN KEEPING with the latest trend, the imposing copper cupola shown above was completely finished before being raised and set into place 85 ft above ground by a crane. This process saved hundreds of dollars in man hours, as compared to the older method of erecting a scaffolding and working precariously from it, according to the company which fabricated the cupola — Fred Christen & Sons Co., Toledo, Ohio.

The cupola was completely assembled and covered in the company's shop. It was then hauled by truck to the job — Toledo's Blessed Sacrament Church.

Measuring 10 ft × 10 ft at the base and 16 ft from

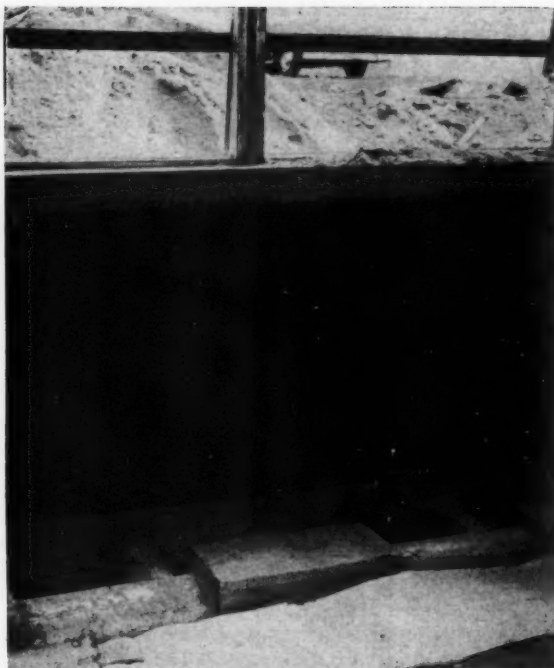
the gutter to the top of the cross, it was carefully constructed of 20 oz cold rolled copper and cleated to a framework constructed of wood.

The cupola is ingeniously fabricated to appear made of heavy lap boards or shingles. However, close observation shows each of the "lap boards" to be metal curved in concave form, with a 5 in. rise at its maximum. Drive cleats on the hips allow for expansion and contraction.

A thousand pounds of copper was used on the roof, gutters and tower deck. The cross at the top is solid brass. The angle legs of the lantern frame are stainless steel.—LAWRENCE E. GICHNER



REGISTER OPENINGS were recessed into wall when office furniture interfered with floor openings



RECESSED WALL openings were treated with vapor barrier material and insulated before concrete floor was poured

Radiant, Convection System

.... heating and ventilating requirements for
which uses both general and

THE HEATING SYSTEM designed for the new offices of the J. P. Glasby Mfg. Co., Inc., incorporates the use of warm air radiant heating along with convection heating through the use of a perimeter loop system installed in a concrete slab. This type system was used to obtain forced ventilation in all offices, particularly those where the doors might be closed for long periods of time during private conferences.

Two Systems Used

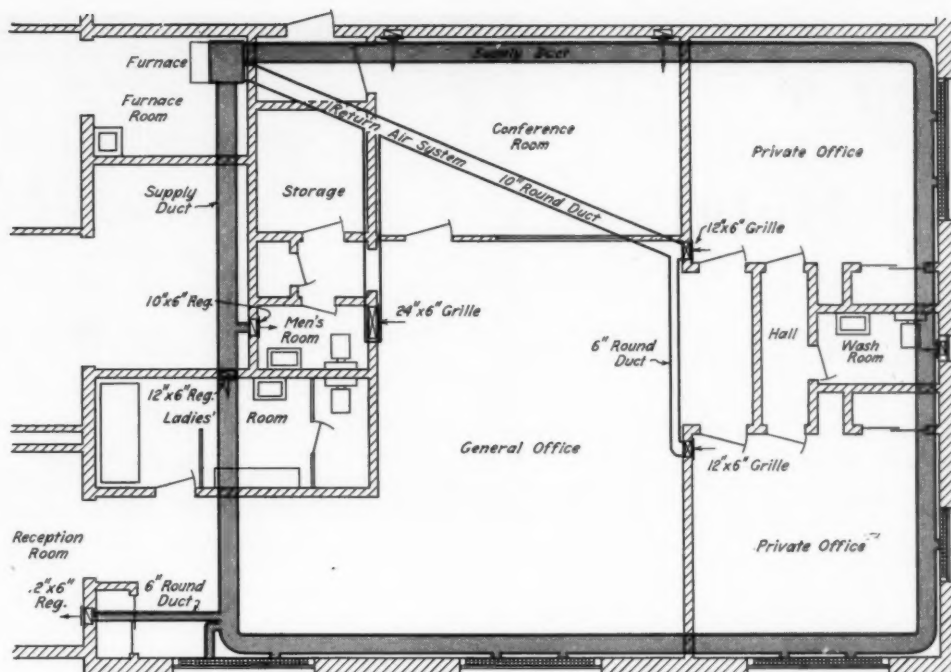
The furnace used is a 100,000 Btu input counter-flow model. The furnace is located in a furnace room at one corner of the office area. Therefore, the rooms near the furnace room receive less convection heating and more heat from the radiant floor panel, while offices farthest from the unit receive the larger quantities of heated air because the heat loss at the perimeter of the

building tends to reduce the radiant panel effect of the slab at points that are distant from the furnace location.

The entire surface under the floor slab was covered with vaporproof craft paper to keep the slab dry. Manholes were placed at convenient locations for the cleaning of the underground ducts. To conduct the heated air to the room outlets, 6 in. collars are used between ducts and stackheads. These collars contain dampers for balancing the air flow.

Insulating Window Recessions

Where the outlets were placed under windows, the wall was recessed across the entire width of the window. Long grilles were placed across the window sill. This recess was lined on the outer wall side with $\frac{1}{2}$ in. glass wool insulation to reduce the wall heat loss at this point. The inside wall was lined with an aluminum foil insula-



LOOP SYSTEM along the outside wall furnishes adequate warm air to offset heat loss and provide sufficient ventilation for all areas

Combines

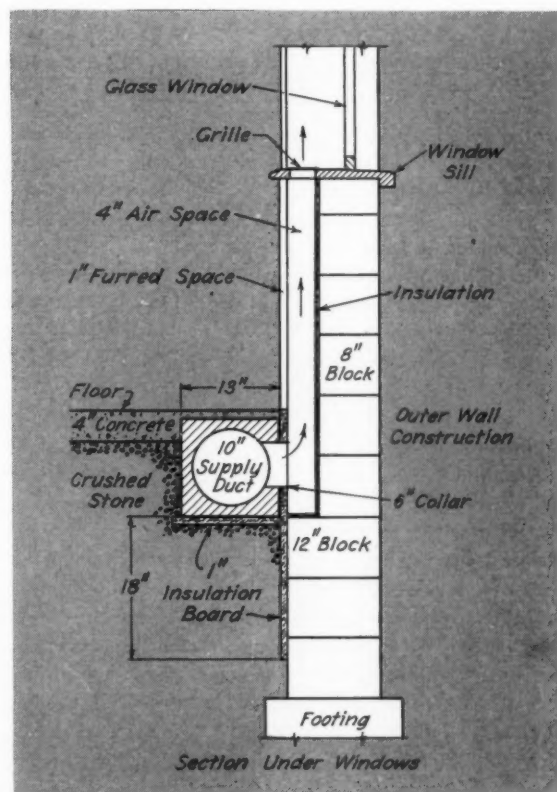
a one story office building
private offices in its layout

tion. This was to prevent the wood paneling in certain rooms from drying out. The air velocity is low at the window openings, and no draft is noticed by room occupants.

The return air intakes are placed on inside walls at the floor line. The air distribution system was balanced to obtain the same temperature in each room.

It was found that the most economical way to operate the system was to use a 5 deg setback temperature for night operation as the morning pickup in temperature is slower than in the conventional duct system where none of the heat is absorbed by a slab of concrete.

While the winter of 1953-54 was not cold for long periods as is normally the case in this section of New Jersey, 5 F temperatures were encountered for a few days. During these cold days, no change was noted in the comfort conditions of the rooms in any part of the building.



DETAILS OF the recessed wall plenum for discharging air at low velocity into areas where heavy smoking often occurs

Hiring a Sheet Metal Job Estimator

By Lawrence E. Gichner
Sheet Metal Contractor



DRAFTING BACKGROUND provides precision and familiarity with blueprints — key ingredients for accurate estimates

**A survey report by the author uncovers
likely sources and outlines specific requirements
for filling this all-important post**

HIRING THE WRONG estimator for a sheet metal job can mean a grave business setback. Some sad contractors years later are still digging their way out of the hole in which the wrong estimator plunged them with a low quotation on a large contract.

Few things are more important to a company than getting the right estimator. Filling vacancies in this all important position is one of management's most significant responsibilities. Though you may not need a new estimator right now, the day will come when you will. How will you find him? Here are some important tips to you for filling this major vacancy.

The initial step is to determine just what duties the job entails and what kind of man you need to fill it. Clarify in your mind just what you expect of him. List the types of work you would want him to be familiar with; specify the kind of background and amount of experience he should have. Write these requirements down, and check to make sure they include exactly what you want along with a description of his duties, and you are ready to start screening applicants.

Look Around You

Many firms point with pride to those who have climbed the ladder within their own company. These people

are familiar with policy, personnel, and kinds of work involved, and require no orientation. In addition, promotions from within are great employee morale boosters.

If the estimator is to come from outside your organization, there are any number of places to apply. A survey of several firms turned up these sources for good estimators:

- 1) Local school of engineering. One young man who worked with a firm during summer holidays came with the contractor on a permanent basis when he graduated, proved his worth, and today is vice-president of the firm.
- 2) Non-competitive companies in other cities.
- 3) Your state and national associations. Attend their conventions or send a representative to their meetings.
- 4) Sheet metal supply houses. Their salesmen get around and frequently know of those contemplating a change.
- 5) Employment agencies. "One of the best estimator-salesman we've ever had came from an agency," an executive reports. "We were delighted to get him."
- 6) The United States Employment Service. This government agency placed some half dozen estimators among the interviewed firms.
- 7) A classified advertisement placed in local and out-of-town newspapers or in trade papers. These ads usually yield the most substantial number of replies.
- 8) Young men in drafting or apprentice schools.



40 ENGINEER-SPECIALISTS expedite duct fabrication and installation at National Sheet Metal Co., Brooklyn

9) Promotions from the shop. By far the greatest percentage of estimators in the business arrived at their job via the mechanics' route, graduating from shop to office.

Other interviewed firms found estimators with various appropriate backgrounds. Some came from the structural steel field, one was a salesman for a steel mill, another had sold sheet metal supplies, and a third was a home builder.

What Is An Estimator?

The functions of an estimator vary with different firms. In some concerns he is just what the term implies — an office man who day in and day out works on blueprints, taking off quantities, computing labor and material involved, estimating costs and selling price.

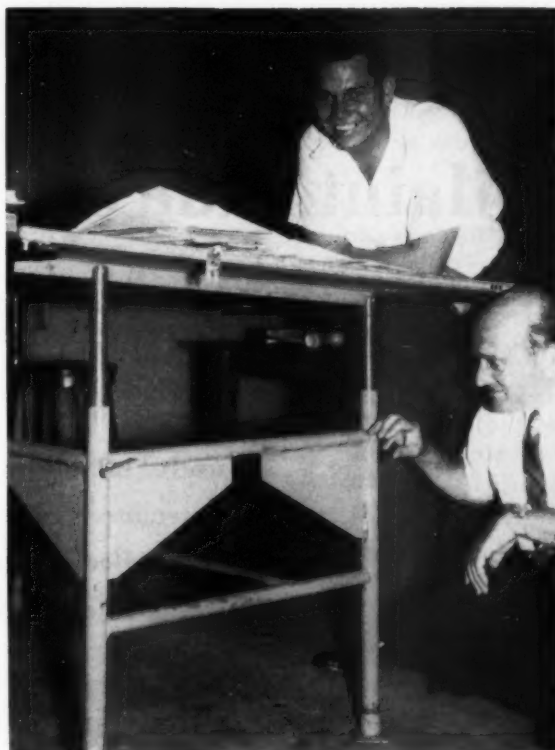
In other firms he also sells the job to general contractors, industrial organizations, business or home owners; in effect, he is a salesman-estimator.

"Common Sense in Estimating and Selling"

A contractor enjoying a large, successful business in this field compiled these ten commandments:

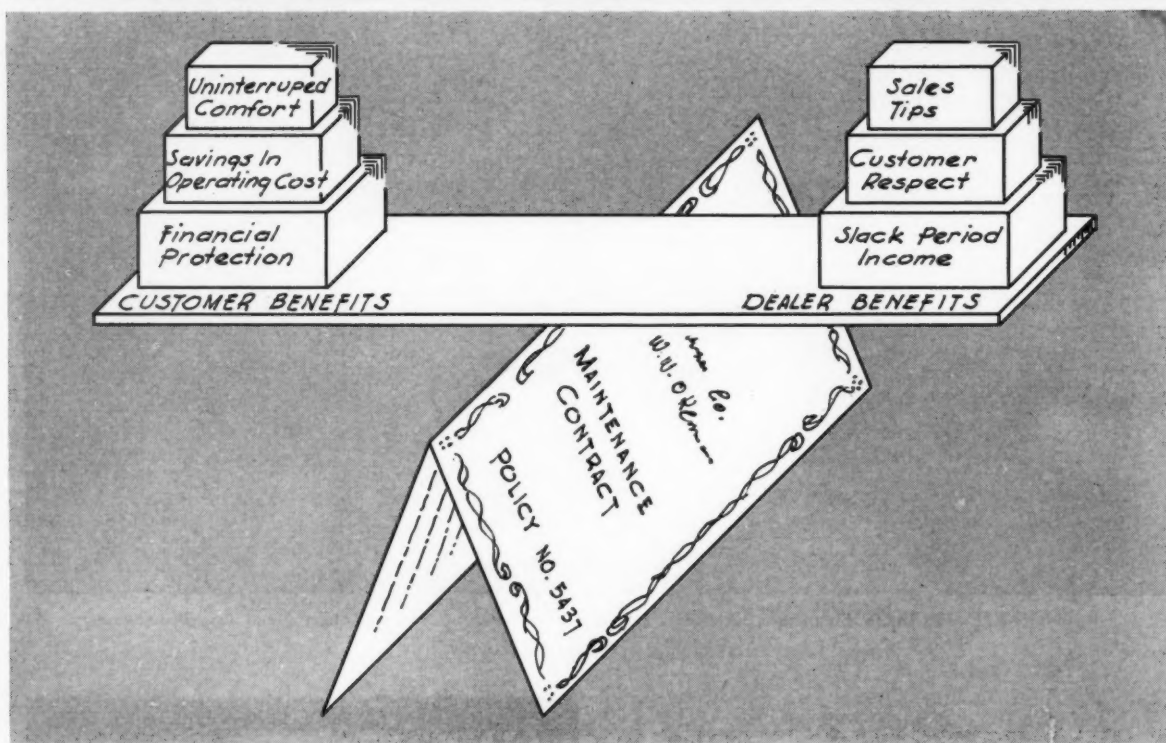
- 1) Like people. Make friends; know and remember

(This article continued on page 149)



ADJUSTABLE TABLE developed by United Sheet Metal Co., Columbus, O., can be raised and tilted to facilitate estimating and layout

RESIDENTIAL AIR CONDITIONING



Maintenance Contracts For Air Conditioning Dealers

... are useful in building customer good will through preventive maintenance, maximum equipment performance and minimum service expense. Contracts build more sales for the dealer and help smooth out the workload of the service department

By S. W. Reid

Air Conditioning Engineer
Gilbert Associates, Inc.

A RESIDENTIAL air conditioning system represents an investment in comfort. The choice of equipment, the design of the system, the installation and the final adjustment all affect the immediate return which the homeowner will realize from his expenditure. If the return is to be steady and enduring, however, the additional factor of maintenance should be a part of the investment picture.

Warranties Furnish Protection

The basic protection the owner of a new air conditioning unit gets is its warranties. They are provided by the manufacturer, usually at no additional cost to and without the option of the purchaser. Air conditioners are usually warranted in two ways — a one year warranty covering the entire unit, and a five year warranty covering the hermetically sealed motor-compressor unit only. One company uses the following wording for these warranties:

In the one year warranty, "XYZ Corp. will furnish without charge, railway freight collect, replacement parts for, or repairs to the products covered herein which prove defective in material or workmanship, under normal and proper use within one year from date of original installation, but not more than two years from date of shipment by XYZ Corp. provided the customer gives immediate written notice of such defects and provided that inspection establishes the validity of the claim.

"The correction of such defects or replacements will be made only when the complete product or parts claimed defective are returned to XYZ Corp. transportation charges prepaid, if such return is requested.

"Repairs or replacements as provided by the foregoing paragraphs shall constitute fulfillment of all . . . obligations with respect to this warranty. This warranty will not apply to any products or parts thereof that have been subject to accident, misuse,

or unauthorized alteration, or where . . . installation and service requirements have not been met. The foregoing warranty is in lieu of all other warranties expressed or implied."

The five year warranty covering the hermetically sealed motor-compressor reads, "XYZ Corp. will supply and cause to be installed for the original purchaser of the air conditioner described below, any time during the five years following date of the original installation, without additional cost, a replacement hermetically sealed motor-compressor unit or part thereof, freight prepaid, when the unit fails to operate due to inherent defects and . . . factory examination shall disclose to its satisfaction that the unit has not been subjected to abuse, accident, misuse or unauthorized alteration and that . . . installation and service requirements have been met. The warranty plan applies only to the motor-compressor unit, and does not provide for adjustments or alterations to the air conditioner other than the supply and installation of a replacement motor-compressor unit or part thereof when the unit fails to operate under the conditions described above. The foregoing shall constitute the complete obligation of XYZ Corp. and the seller and no person is authorized to assume for either any liability in connection with the sale of the air conditioner except the one-year warranty. In no event shall XYZ Corp. or the seller be liable for consequential damages. This warranty plan shall apply only within the boundaries of continental United States of America."

Quite obviously neither warranty has any provision for attention to the unit except in the case of failure of parts due to defects in design or manufacture. The owner of a warranted unit is protected only to that limited extent. He is not protected from either financial or comfort losses which are a consequence of neglect. The dealer who is interested in ob-

FIRST WE EXPLAINED FUNDAMENTALS

. . . In Mr. Reid's series of 20 articles (concluded in the May, 1954 issue). The basic operating characteristics of residential cooling equipment were described in detail.

NOW SPECIAL ATTENTION TO SPECIFIC PROBLEMS

. . . in a new series based on the author's wide experience in the field. Pointers on service and application techniques have been presented in articles published in the following issues:

1) Sheet metal contractor installs year 'round air conditioning system in branch bank (June 1954).

2) How to service hermetic condensing units (July 1954).

3) Keeping cooling coils operating at peak efficiency (August 1954).

4) Refrigerants for residential air conditioning systems and how they perform (September 1954).

5) Methods used to lubricate residential cooling systems (October 1954).

6) Locating troubles and what to do about them (November 1954).

7) How to charge a summer cooling system (December 1954).

"... there is today a contractual type of service for air conditioning systems which the dealer can provide at profit to both himself and his customer."

taining and keeping the good will of a customer should go over the warranties carefully with the owner of each new installation so there will be no misunderstanding. It will give him a chance to point out the limitations of the warranties and to make quite obvious the need for regular care.

The responsibility for maintenance could be placed on the owner's shoulders provided the dealer would point out to him the various parts that should be lubricated regularly, belts that should be checked, filters that should be cleaned or replaced etc., and most owners have every intention of doing what is required. Time has a way of passing, however, and periods between regular attention get longer and longer until the day finally arrives when an emergency call for service is necessary.

Preventive Maintenance Defined

As opposed to haphazard owner attention, which is usually motivated by a difficulty serious enough to appreciably affect comfort, there is today a contractual type of service for air conditioning systems which the dealer can provide at profit to both himself and his customer. Such service is known as preventive maintenance.

A program of preventive maintenance will not only include the routine oiling and adjusting necessary to keep an air conditioning system at top operating efficiency, but also will reveal operating troubles before they become serious enough to require costly repairs. Preventive maintenance provides regular and systematic inspection by skilled service men. Inspection intervals are set up in the contract so the job is checked regularly without any need for a call from the owner.

One manufacturer of air condi-

tioning equipment offers two types of contracts through its dealers. One type provides for periodic inspection and includes certain routine attention and minor adjustments. Oil and grease are the only materials furnished. All other service is billed as additional to the contract on a time and material basis. Emergency service between the normally scheduled inspections is included with the stipulation that it will be furnished only if the repairs, refrigerant and supplies that are recommended as a result of an inspection are authorized. This type of contract relieves the owner of the responsibility of making periodic checks of his equipment, but it does not remove his prerogative to evaluate recommendations and decide the extent to which he will authorize repair work.

Contracts Vary In Scope

The inspection contract is written in various forms, most of which itemize the work to be performed. A typical listing might be as shown in Table I. Regular inspections covering the items listed are usually made three times a year to provide a pre-season, mid-season and end-of-season check. All calls, including any emergency calls between regular inspections, are contracted at regular hourly rates. The owner agrees to pay the difference between these and premium rates for any calls he requests outside normal hours.

The second type of contract is more comprehensive. It has all the features of the first type plus an agreement to furnish and install, at no additional cost to the owner, all replacement parts, repair work, refrigerant and other materials necessary to maintain proper operation of the air conditioning system. The scope of

a typical contract of this kind is broadly covered by four items:

- 1) Regularly inspect the equipment to check its operation and to oil, clean and adjust it at least . . . times a year. (Number depends on the installation — usually three times a year.)

- 2) Furnish emergency service between regular inspections.

- 3) Make any repairs, replacements or adjustments required to provide satisfactory operation.

- 4) Furnish all necessary repair parts, including freight, cartage and labor to install them.

Major limitations in the contract are as follows:

- 1) The owner agrees to pay the additional cost for work performed beyond regular working hours.

- 2) Any work done on the equipment without the authority of the maintenance contractor voids the contract.

- 3) The maintenance contractor is not responsible for the consequences of improper operation, negligence or misuse of the equipment. Service work and parts to correct such consequences are considered extra to the contract.

- 4) The contract specifically excludes from coverage air conditioning ductwork; recording or portable instruments, gages or thermometers; water, drain or waste lines not connecting two or more pieces of equipment in the system; cleaning of water-cooled condensers more than once a year or responsibility for maintaining the appearance of decorative casing or cabinets.

The second type of contract is actually an insurance policy since part of its costs are based upon actuarial records of the replacement experience of the sponsoring manufacturer. The owner, by paying relatively small sums regularly, protects

TABLE I**Typical List of Services Performed
Under Inspection Contract****Air Conditioning Unit**

Item checked	Service performed, if necessary
1. Blower and motor bearings	Lubricate
2. Motor housing	Clean
3. Blower belt	Align, adjust tension
4. Blower wheel	Adjust clearance with blower housing
5. Cooling Coil	Clean
6. Air filters	Clean or replace with new filters
7. Condensate drain pan	Clean, paint
8. Refrigerating system	Check pressures, leak test, add refrigerant
9. Water-cooled condenser	Clean water tubes once a year
10. Air-cooled condenser	Clean fins
11. Water regulating valve	Clean and adjust
12. Controls, dampers	Clean and adjust for seasonal operation
13. Cabinet	Correct air leaks, touch up paint, clean

Cooling Tower

Item checked	Service performed, if necessary
1. Pump, blower and motor bearings	Lubricate
2. Motor housings	Clean
3. Blower belt	Align, adjust tension
4. Blower wheel	Adjust clearance with blower housing
5. Spray nozzles	Clean
6. Water reservoir	Clean, drain at end of season
7. Float valve	Adjust, stop leak
8. Pump	Tighten packing, adjust water flow

himself against large financial outlays to correct serious breakdowns. He also assures himself of an uninterrupted return from his investment in comfort.

Service contracts of the inspection type are usually written for a period of one year with an automatic renewal clause unless either party gives a 30 day written notice of intention to cancel.

Complete maintenance contracts are usually written for longer periods, perhaps five years. A clause may provide for price adjustments upon proper notice each anniversary date to correct for prevailing rates each year. As with the simpler contract,

a 30 day written notice is necessary to cancel.

In the foregoing descriptions of service contracts we touched upon some of the benefits to the equipment owner. A dealer who is to be successful in selling contractual service must be convinced himself that it will fill a definite customer need. He must know the benefits and be able to select those which will have the greatest appeal for each particular prospect.

Stress Customer Benefits

What are some of the most appealing benefits? One certainly is

that it can save the customer money. A dealer should have no trouble explaining to a prospect how regular attention and proper tune up can keep the system providing the most cooling Btu per dollar. The mere cleaning of a condenser or adjustment of a water regulating valve can noticeably reduce operating expense. Simple repair to a leaking cabinet or proper adjustment of an outside air damper will have a like effect.

Savings in maintenance expense will also accrue as the regular inspections point up possible troubles before they become serious. Regular, low cost attention to the lubrication needs of a system will, for example, save an

owner the expense of new bearings. Early detection of leaks can save refrigerant costs. The periodic checking of safety controls can reduce the likelihood of a burned-out compressor motor.

In addition to dollar savings, a maintenance plan provides a benefit in uninterrupted comfort. The owner of the plan is assured that every practical attention will be given his equipment so the chance of a serious breakdown is minimized. Breakdowns in neglected equipment usually occur at times of greatest load which for an air conditioning system is the hottest weather. Proper care in advance will give the equipment its best chance to perform as intended under all conditions.

The insurance plan of complete maintenance places all responsibility in the hands of the dealer for keeping an air conditioning system running smoothly. It appeals to certain owners for this reason and also for the reason that it permits accurate budgeting of maintenance expense. Instead of having to estimate how much to allow each year for maintenance, the owner with a complete plan will know his approximate yearly expense in advance and can be reasonably sure that it will be no more than the contracted amount.

The maintenance contract is not a one way proposition for the sole benefit of the consumer; it must and does have advantages for the dealer also. First of all, it builds customer respect. A long list of satisfied customers is one of the dealer's most valuable assets. Prospective buyers of air conditioning often seek advice of neighbors who have it on where or where not to buy.

A second advantage to the dealer is the fact that the maintenance contract gives his men frequent contact with customers. It gives him a chance to obtain helpful sales tips on new prospects from the customer to recommend the purchase of new equipment when it is needed. This advantage is more quickly realized by building contacts with owners who have equipment that has been in service for a period of time.

A third dealer benefit is the steady

income from maintenance contracts which provides operating revenue for slack periods. It also enables the service manager to keep his men busy. The periodic inspections will provide advance information on work to be done so that it can be scheduled to fit the seasonal work pattern of the service group.

Service Department Holds Key

Having an efficient and reliable service department is a goal toward which every dealer should work. For the dealer who holds maintenance contracts, the word reliable should be underlined. Maintenance contracts usually represent advance payment from the owner for work to be done in the future. If the terms of the contract are not or can not be met fully by the dealer, he will certainly find the owner hard to sell when the contract renewal date comes around. To avoid difficulties an adequate administration is needed.

Adequate administration does not mean burdensome or costly administration. Actually, the paper work can be quite simple. The contract documents, of course, are the foundation for the file. They contain the scope of the work to be done and an accurate record of the equipment covered. The owner gets a copy of these documents as well as a large service record card which is tacked up near the unit to be used by the service man to record the date of each call and to check off the services which he has performed. It is also a reminder of the dealer's name and phone number for use in emergency.

At the dealer's office the shop copy of the contract would be filed together with a complete folio of all the detailed reports which the service men turn in from time to time. These reports can be of the check-off type and arranged for rapid analysis. They can furnish the basis for making recommendations to the owner and are reviewed by the dealer's salesmen for possible prospects for new equipment or replacements.

For a quick review of the status of all maintenance contracts he holds, the dealer might maintain a

small handy *tickler* file of 3 × 5 in. cards. These might contain such essential information as the owner's name, address and phone number, the make, type and model number of his equipment, the date the equipment was purchased, the contract number, the anniversary date of the contract and any other important information. On the back of this card will be entered the date and time of each call.

Use Customer Questionnaire

Many dealers seeking more business through recommendations by established customers have followed through each call with a card on which the customer was asked to answer "yes" or "no" to questions such as:

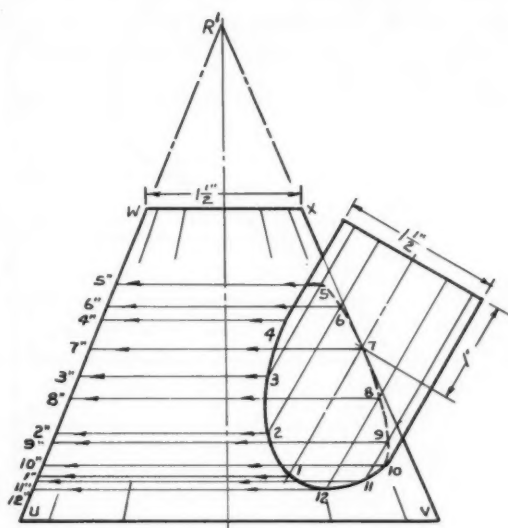
- 1) Was the call completed in a workmanlike manner?
- 2) Was the service man courteous to you?
- 3) Is the equipment operating to your satisfaction?

Cards which indicate that a good job was done were used by the salesmen in talking to prospects. Cards which indicate customer dissatisfaction were followed up promptly with a personal call to determine the reason. Every reasonable effort will help to keep the customer satisfied.

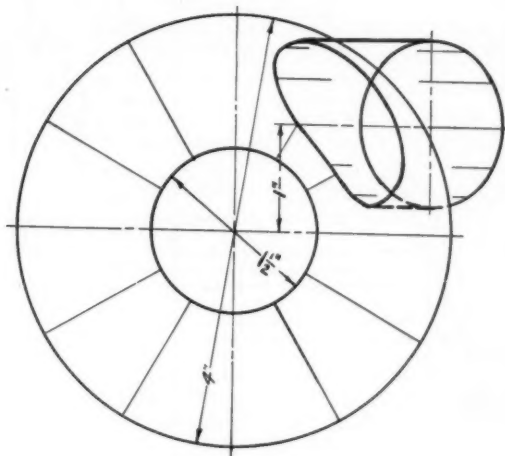
A detailed description of the method of establishing costs for maintenance contracts is beyond the scope of this article; however, dealers can usually obtain guidance from manufacturers from whom they buy their major equipment. Help will be needed especially in working up complete maintenance contracts since part of their cost must be based on a quantitative analysis of past experience.

Those manufacturers who supply their dealers with maintenance programs can suggest quick cost calculating methods and may even provide forms and the necessary tabulated information to complete them. The material is usually set up so reliable costs may be figured for servicing almost any combination of equipment a customer may have.

HUGH REID'S SHEET METAL PATTERN



1 FRONT VIEW and . . .



2 PLAN VIEW show round pipe intersecting at a 30 deg angle and off center

Designing an Off-Center Intersection Into a Taper

DURING THE early phases of engineering for new manufacturing plants, all too frequently the work of individual engineers is not compared before the blueprints are made. The failure to perform this operation often results in the dual use of the same space. This month's sheet metal fitting can be used to reduce the alterations that would be necessary if standard fittings were used.

Examples of where such a fitting as the 30 deg intersection taper with an off-center location for the smaller duct might be used would be where water or steam lines pass the tapered fitting across its horizontal center and where the location of manufacturing equipment using large quantities of heat-producing equipment requires that the intersecting exhaust duct be located close above the processing equipment. It has been found that a fitting such as described here will be more

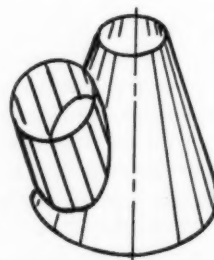
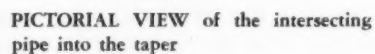
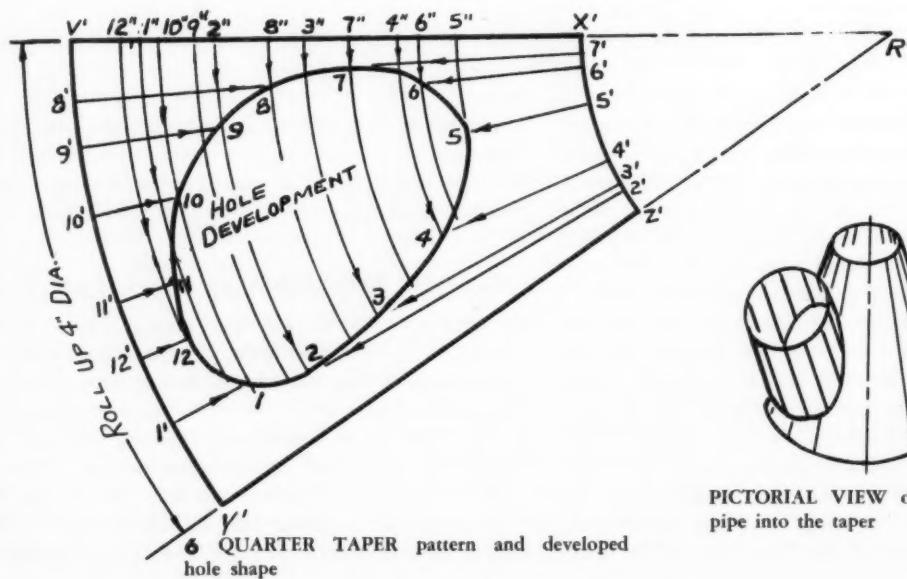
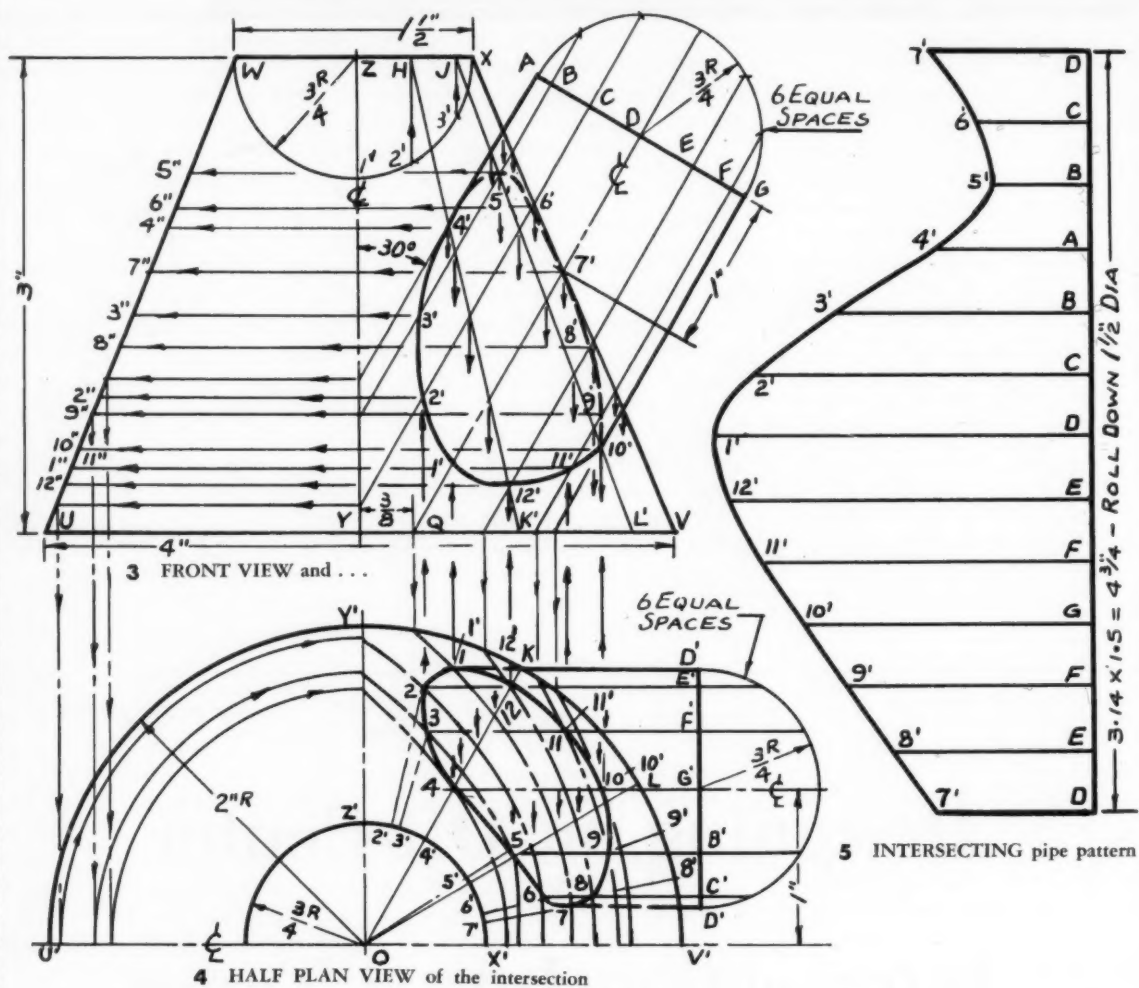
economical to install than would rerouting the process piping.

The following is a step by step solution of the pattern problem:

Simplified Method Drawing, Figs. 2, 3 and 4 —

a) Draw a 6 in. extended vertical center line and mark it C-L. Establish point O at the base of this line and through this point draw a line perpendicular to the center line.

b) With O as center and radii $\frac{3}{4}$ in. and 2 in. (Fig. 2), draw half circles above the horizontal line. Mark the point U' where the left end of the 2 in. arc meets the horizontal line. At the intersection of the right end of the 2 in. arc and the horizontal line



mark the point V'. From the horizontal line through point O, measure 1 in. up the vertical center line and draw a center line parallel to the horizontal line. This will become the center line for intersecting round pipe. This completes the basic working points of Fig. 4.

c) To develop Fig. 3, measure approximately $2\frac{3}{4}$ in. above point O and establish point Y as the base point for further development. From point Y measure the taper length of 3 in. to establish point Z. Through points Y and Z draw lines perpendicular to and extending on both sides of the center line.

d) From point Z measure $\frac{3}{4}$ in. to the right and left and mark the points W and X. Measure 2 in. to the right and left of point Y and mark the points U and V. Draw the lines W-U and X-V.

e) Measure $\frac{3}{8}$ in. to the right of point Y and mark this point Q. Through point Q draw a line to the right and at 30 deg to the vertical center line Y-Z. From the intersecting point of the 30 deg line and line X-V measure 1 in. upward on the 30 deg line and establish point D. Through point D draw a line perpendicular to the 30 deg center line.

f) With D as center and radius $\frac{3}{4}$ in. draw a half circle to the right and left of the center line. Divide the half circle into 6 equal spaces and through the points draw lines to intersect center line Y-Z and diameter line U-V.

g) Draw a line through point D and perpendicular to the 30 deg center line to each end of the half circle. Where the equal space lines cross this line, establish points A, B, C, E, F and G.

h) With point Z (Fig. 3) as center and radius $\frac{3}{4}$ in., draw a half circle below line W-X. Divide the quarter circle to the right into three equal spaces and number the points 1', 2' and 3'. From these points draw lines perpendicular to and intersecting line Z-X at points H and J.

i) Divide the right side of the 2 in. radius quarter circle (Fig. 4) into three equal spaces and mark the points Y', K, L and V'. Draw lines connecting point O with points K and L. From points K and L (Fig. 4) draw lines perpendicular to and intersecting the large taper diameter line U-V of Fig. 3. Mark the points K' and L'.

j) Draw a line from point H on the small diameter of the taper (Fig. 3) to point K' on the large diameter. Also draw a line from point J to point L'.

k) Working from the intersection points where the 30 deg lines (Fig. 3) drawn from points A, B and C meet with line Z-Y, draw lines perpendicular to line Z-Y and intersecting line W-U. From these intersection points draw vertical lines to intersect line U'-V' (Fig. 4) and with point O as center and the intersection points as radii, draw 90 deg arcs intersecting the vertical center line Y'-O.

l) From the points on Fig. 3 where the 30 deg lines drawn from points A, B, C, D and E intersect line H-K', project lines parallel to the line Y-Z and intersecting line O-K on Fig. 4.

m) From the points on Fig. 3 where the 30 deg lines drawn from points A, B, C, D, E, F and G intersect line J-L', project lines parallel to the line Y-Z and intersecting line O-L on Fig. 4.

n) From the points on Fig. 3 where the 30 deg lines drawn from points A, B, C, D, E, F and G intersect line X-V, project lines parallel to the line Y-Z and intersecting line O-V' (Fig. 4). Through the developed points on lines O-Y', O-K, O-L, O-V' and arc Y'-V' (Fig. 4) draw the lines connecting the points on line O-Y' and arc Y'-V' with line O-V'. On Fig. 4, number the intersecting points 1 through 12 as indicated.

o) Measure 1 in. up the center line Y'-O (Fig. 4) and draw a line to the right about 3 in. On this line measure $2\frac{1}{8}$ in. and establish point G'. Perpendicular to this line and through point G' draw a line that extends $\frac{3}{4}$ in. on both sides.

p) With G' as center and radius $\frac{3}{4}$ in. (Fig. 1) draw a half circle to the right of point G'. Divide the half circle into six equal spaces and locate the points D', E', F', B', C' and D' on the vertical line passing through point G'. Through these points draw lines perpendicular to line D'-D' and intersecting the developed lines at points 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12. Through the points draw the outline of the intersection.

q) From points 1 to 12 inclusive (Fig. 4) project lines perpendicular to the horizontal line O-V' and intersecting the corresponding lines on the front view (Fig. 3). Mark the points 1', 2', 3', 4', 5', 6', 7', 8', 9', 10', 11' and 12' on Fig. 3. Through these points draw the vertical outline of the round pipe and taper intersection.

r) From points 1', 2', 3', 4', 5', 6', 7', 8', 9', 10', 11' and 12' (Fig. 3), draw lines perpendicular to center line Y-Z to intersect the taper line W-U. Mark the points 1'', 2'', 3'', 4'', 5'', 6'', 7'', 8'', 9'', 10'', 11'' and 12''.

s) Working from center point O (Fig. 4) draw lines through points 1, 12, 11, 10, 9 and 8 to intersect 90 deg arc Y'-V' at points 1', 12', 11', 10', 9' and 8'.

t) From point O (Fig. 4) draw lines through points 2, 3, 4, 5, 6 and 7 to intersect the $\frac{3}{4}$ in. radius 90 deg arc at points 2', 3', 4', 5', 6' and 7'.

Intersecting Pipe Pattern, Fig. 5

a) To calculate the round pipe stretch-out, multiply the given diameter by the constant 3.14. Thus, 3.14×1.5 equals $4\frac{3}{4}$ in.

b) Draw the vertical line D-D which will be $4\frac{3}{4}$ in. high. Divide the line into 12 equal spaces and through the points draw lines to the left and perpendicular to line D-D.

c) Establish the seam line which is line D-7' (Fig. 3) and transfer this line to the top and bottom lines on Fig. 5.

d) From Fig. 3 transfer line distances C-6', B-5', A-4', B-3', C-2', D-1', E-12', F-11', G-10', F-9' and E-8', in their given sequence to the equally spaced horizontal lines

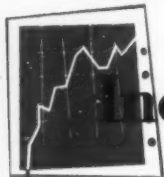
(This article continued on page 156)



NEWLY ELECTED President G. W. Denges (left) discusses plans for next year with F. L. Meyer, the new first vice president



ENGINEERS FROM University of Illinois research staff who made reports (from left): C. F. Chen, H. T. Gilkey and D. R. Bahnfleth



Increase in Business Seen for '55

... by speakers and members attending the annual convention of the National Warm Air Heating and Air Conditioning Association

OPTIMISM WAS the keynote in Cleveland December 1 and 2 as members assembled for the 41st annual convention of the National Warm Air Heating and Air Conditioning Association. Speakers and other industry authorities predicted a big year for the trade on the heels of a continuing air conditioning boom.

In his opening address, President C. B. Phillips gave the answer to a pertinent question, "Where Are We Going?" which was also the theme of the convention. Mr. Phillips stated there has been an average of one million new homes completed each year since the end of World War II and that all forecasts for 1955 point toward the completion of 1,250,000 new homes. This increase in the housing field means more warm air heating installations than ever before, and to the number that will be sold in the new house field could be added many thousands of replacement jobs due to the increasing trend towards modernization.

Officers elected for 1955 are: president, G. W. Denges, The Williamson Heater Co., Cincinnati; first vice president, F. L. Meyer, The Meyer Furnace Co., Peoria, Ill.; second vice president, Tom Byrd, The Lau Blower Co., Dayton; managing director and secretary-treasurer,

George Boeddener, Cleveland. The board of trustees of the association is comprised of the following: Sheldon Coleman, The Coleman Co., Inc., Wichita, Kans.; J. F. Deane, International Sales Co., San Francisco; E. A. Eichenberger, F. Meyer & Bro. Co., Peoria, Ill.; L. C. Harvey, Affiliated Gas Equipment, Inc., Cleveland; E. P. Hayes, The C. A. Olsen Mfg. Co., Elyria, Ohio; J. F. Knoff, Chrysler Airtemp Corp., Dayton; S. J. Levine, Air Conditioning Div., General Electric Co., Bloomfield, N. J.; T. W. McNeill, Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., New York City; J. W. Norris, The Lennox Furnace Co., Marshalltown, Iowa; F. J. Nunlist, Jr., Mueller Climatrol, Milwaukee; C. J. Pearson, U. S. Register Co., Battle Creek, Mich.; and C. L. Sapp, The Farquhar Furnace Co., Wilmington, Ohio. Ex-Officio: C. B. Phillips, Surface Combustion Corp., Toledo, Ohio.

Government Statistics Encouraging

If statistics have any value in our modern business planning, the information given by H. E. Riley, Chief, Division of Construction Statistics, Bureau of Labor



A STORY about the sale that didn't get away is told by Frank W. Bennett (left) to Bill Olsen, Carl Theobald, R. W. Geisler and Harold P. Mueller, Jr.



NOTES FOR future use are made by C. T. Burg as he talks sales potentials with Kenneth W. Cash

Statistics, proves President Phillips' prediction of 1,250,000 new homes in 1955 to be very realistic; in fact, Mr. Riley indicated the total number of housing starts could very possibly reach 1,300,000. Mr. Riley further pointed out that the year 1954 established a sales record second only to 1950, with the last part of the year showing a continued increase over similar months of previous years.

The increase in sales volume was accredited to the growing number of people in the middle income bracket and the decreasing number in the lower income bracket. The middle income bracket is based on a \$4000 annual income as against a \$3000 annual income in the lower bracket. Mr. Riley said many heads of households had advanced their annual income to \$5000 and more and those families in this bracket are considered good risks by companies lending money for the purchase of homes. He pointed out that families having annual incomes between \$4000 and \$5000 were not only good risks for mortgages but were excellent prospects for the use of other products offered by the warm air heating dealer.

The desire to own a home has initiated the present buying fervor for products of all kinds and the impetus of this public attitude will carry over for a long time — possibly until the demands are felt from the new households expected to be formed in the early 1960s by the baby crop of the war years.

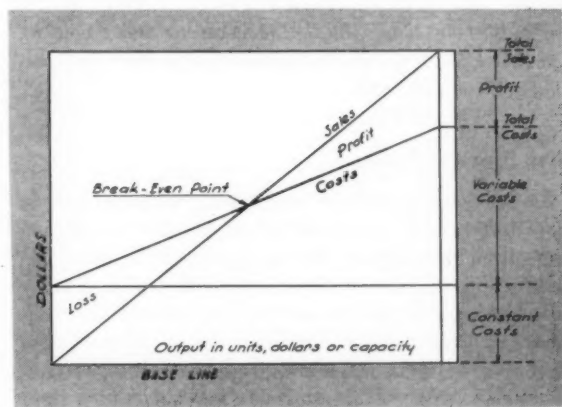
How to Build Profits

The volume of business available is always important to the manager of a company but how successfully the company operates is based more on the quality of the company's management, according to John D. Corrigan, a business economist. Mr. Corrigan contends that the factor that will aid a company to grow steadily regardless

of the economy of a local area, and over which the company leaders have no control, is the ability of the management to know how to use a break-even chart.

In describing the break-even chart and its relation to the profit value of the sales dollar, Mr. Corrigan said, "The profit — before taxes — of a company will vary as a direct percent of any variation in sales — or income — up or down. This percentage is known as the *profit value ratio*. This fact applies to every type of business — manufacturing, wholesaling and retailing. Profits disappear at the break-even point and losses build up at a fast rate, since the two opposite angles at the break-even point are equal. A break-even chart gives a visual presentation of a business at a glance and can be drawn in 15 minutes."

In preparing a break-even chart, the vertical height of the graph represents the total sales in units, dollars or



BREAK-EVEN CHART tells at a glance what profit or loss can be expected for any sales volume

capacity. The column is divided into profits and total costs. Total costs consist of constant costs and variable costs. The graph will show that as sales volume increases toward maximum capacity the variable costs will cross the sales volume line. This is the break-even point beyond which profits are possible. The closer production comes to the maximum capacity of the business, the greater the angle and the greater the profit. A study of the accompanying chart will further explain the workings of this business tool.

Data on Air Conditioned Village

The need for technical data on summer cooling equipment for use in residential air conditioning was explained by Ned Cole, chairman, air conditioning committee, National Association of Home Builders. Mr. Cole explained the underlying reasons for the development of the Air Conditioned Village at Austin, Tex. He pointed out many of the home builders' problems, some of which are related to the best market for air conditioned homes, (those costing \$12,000 to \$18,000 including the cost of the land). Mr. Cole said the best structure for this price is a one story house built over a concrete slab. To meet necessary FHA and VA requirements, Manual 11 was used to estimate the heat gain for the buildings in the Air Conditioned Village.

The majority of the 22 homes in this project are in the 1400 sq ft class and by following the recommendations of Manual 11 it was found a two ton unit would satisfactorily meet the needs of the buildings. Tests during the past summer indicated that it is as important not to over-design as it is not to under-design. Mr. Cole said valuable data was obtained from each of the 22 different systems and is now being analyzed and arranged for comparison. These reports should be completed and ready for distribution by April 1.

Facts that already stand out are related to the public's acceptance of residential air conditioning. Mr. Cole said public acceptance has not yet reached what may be considered a demand but there is evidence that people are beginning to want year 'round air conditioning in larger volumes, and that mortgage and other lending groups are indicating they will be reluctant to make housing loans on new homes in a few years unless they are completely air conditioned.

Give 'Em the Answers

To sell year 'round air conditioning to home buyers, more information is desired by the builders and should come from those selling the equipment. Information desired relates to questions such as the following now being asked by prospective buyers of air conditioned residences: a) What does complete air conditioning mean to the buyer? b) How much does it cost to install? c) How much does it cost to operate? d) How long will it last? e) What repairs are needed? f) What about periodic inspection? g) To what degree must the home owner be

concerned with switchover from heating to cooling and vice versa? The answers to these questions and many others can be provided by the residential air conditioning dealer who not only verifies his position as the authority on air conditioning in his territory but also builds his sales volume to a more profitable level as indicated by Mr. Corrigan's business chart.

Valuable Research Information

The results of some of the research conducted at the University of Illinois were reported by H. T. Gilkey, D. R. Bahnfleth and C. F. Chen. The investigation of small pipe perimeter heating systems for Research Residence No. 2 was reported by H. T. Gilkey, who outlined the distribution system and the various tests conducted. The results of these tests indicated the Btu input to the building was the same regardless of the amount of heat directed to the basement, which had a heat loss of 21,000 Btu.

Four tests were conducted in this respect, with heat inputs of 12,000, 15,000, 18,000 and 21,000 Btu each being directed into the basement by means of the quantity and temperature of the air used. During these tests, the air flow rates for the first floor of the one story house remained constant. The results of these four tests indicated that the house was not being heated as several zones but that the entire building (basement and first floor) was reacting as a single unit with the heat loss equal to its exposed areas.

Further evaluation of the data obtained showed that when the full quantity of air was used to replenish the 21,000 Btu heat loss of the basement, warmer floors were noted in the living areas and the temperature gradients in the rooms on the first floor were less than when the air volume to the basement was reduced to provide less heat to that area. Mr. Gilkey concluded that the results of these tests indicate heating a basement is no more expensive than not heating it.

Cooling With Small Duct Systems

The use of small pipe perimeter air distribution for a cooling system was investigated during the summer of 1954 in Research Residence No. 2. The results of the tests were reported by Dr. R. Bahnfleth, who explained that the 1040 sq ft house had been occupied by two adults and two infants during the entire summer and that it was felt the results recorded could be comparable to other residences located in similar climates. Nine $2\frac{1}{4} \times 14$ in. floor diffusers were used for the air supply openings, each of which was located 8 in. from the outside wall. This size diffuser was decided on to obtain a discharge air velocity of about 500 fpm. This discharge velocity created sufficient induction of room air to cause only a 2 deg difference in room temperature in the zone between the 3 in. and the 60 in. levels above the floor.

Activities of the occupants were recorded so variations

(This article continued on page 214)

Heating and Cooling With a Heat Pump System in Wisconsin

Where winter design temperature is -15 F and the summer design temperature is 95 F, the maximum demand for adding or removing heat can be met by the use of an adequate storage system as indicated by an analysis of the data collected for 395 days in this residence

By Glydewell Burdick

CONTINUING THE REPORT begun in December 1954 American Artisan on the performance of a heat pump during the entire heating-cooling season in this northern location, we turn to some of the problems involved.

The problem of heat distribution as well as the opportunity for constant addition of heat to the air at a low rate becomes more apparent from consideration of the representative temperatures given in Table 1.

The use of low heat distribution temperatures is essential to the economical operation of the heat pump. The characteristics are such that the less the difference between the temperature of the well water leaving the evaporator and the temperature of the warmed circulating water leaving the condenser, the higher will be the overall efficiency. The less this difference in temperature, the lower the head pressure and the lower the power required for compression; also the greater the proportion of the total heat output obtained from the well water and the less the proportion of total heat output supplied by the electric power.

All this leads to the use of low duct temperatures, and the highly desirable qualities of CAC fit in admirably with the economical operation of the heat pump when heat storage and outdoor-reset control of tank temperature are provided.

A requirement not uncovered until the system was in operation was that the water temperature drop through the air coil must be not less than, and preferably greater than, the circulating water temperature rise through the heat pump. If this requirement is not met, the storage tank will not function properly and the heat pump will operate too frequently. This dictates throttling the air coil water, either manually when major changes occur

in the weather or automatically from variations in the storage tank temperature. Another alternative, and possibly the most satisfactory (as well as being less expensive than automatic modulation) is to select an oversized air coil with enough rows of tubes so that with the same water rate required for the maximum heating condition, the coil will cool the water the required amount when the tank is at its minimum temperature in mild weather. Last winter I used hand throttling, which required only infrequent attention since the range of acceptance is great. It is now automatically modulated.

Variations Due to Mild Weather

It is apparent that the outdoor-reset control of tank temperature will not work satisfactorily in mild weather without sacrificing efficiency somewhere along the scale and that when the outdoor temperature rises to about 45 to 50 F the control should be switched to a fixed point. We did this manually several times during the winter as conditions indicated, but an inexpensive thermostat will do the same job automatically, and is now installed.

It was a surprise to me to discover that in our all-electric home more than 20 percent of the annual heating requirement comes from the miscellaneous use of electricity in the home exclusive of the electricity used for heat collection and storage. This has its effect on the control of room temperatures under the varying conditions created by the output of the electrical devices within the room.

From my own limited experience, it seems to be a mistake to oversize the compressor in a heat pump installation and probably would be wise to deliberately undersize it a bit for the sake of longer operating cycles and lower well water rates. For economy, with 50 F water as the heat source, about 4 gpm per hp is about the minimum. I wish I had put in a 3 hp instead of a 5 hp unit. A 3 hp unit would meet only 73 percent of the heat loss of the house at -15 F, but with the storage tank acting as a reservoir to offset partially the shortage on the very few occasions necessary, I would be willing to temporarily reduce bedroom temperatures or supply a little auxiliary heat in order to balance out. I am sure that it is cheaper

TABLE 1—REPRESENTATIVE CONDITIONS of operating equipment for heat pump installation

	Outdoor Temp. 32 F or Above	Outdoor Temp. -15 F
Well water off evaporator (A)	46 F	46 F
Well water into evaporator	51 F	51 F
Circulating water into condenser	75 to 79 F	102 F
Circulation water off condenser (B)	86 to 90 F	110 F
Circulating water to air coil	86 to 90 F	110 F
Air off air coil	80 to 85 F	105 F
Temperature difference equals (B) minus (A)	40 to 44 F	64 F
Refrigerating equipment head pressure	105 to 125 lb	155 lb

and more satisfactory to maintain constant room temperature without night setback with this type of system than it is to install excess capacity for quick pickup under maximum heat loss conditions.

An oversized evaporator would be a distinct advantage for use with our 50 F well water. This would lengthen the periods between chemical treatment essential to maintaining operation, and when clean, would increase the temperature and pressure of the refrigerant leaving the evaporator, thereby further improving efficiency. Some arrangement for treatment of the well water circuit through the evaporator should be provided to keep the heat transfer surfaces reasonably clean. The circulating water in the storage tank can be treated when put in, but should be checked periodically.

Attention Given Air Noise

Air noise should have careful attention in design. This is simply a question of good engineering and execution, holding air velocities and fan tip speed well within recommended limits, providing adequate vibration insulation between blower and ductwork and using duct fittings that assure a smooth air flow.

Problems With Cooling

If the system is large enough for heating, then it is sufficiently large for cooling in the Madison area. Installing ducts and outlets with a 50 percent increase in capacity for the kitchen and second floor rooms is recommended, over the capacity required for heating.

To avoid having condensation problems, it is important to insulate all piping, storage tank, and the ductwork exposed to humid air.

When the same ducts are used for both heating and cooling, it appears to be impossible to have the outlets balanced to permit frequent switchover from one system to the other as the weather changes and still have good distribution under both conditions. This is a problem faced by every year 'round air conditioning system and needs to be taken into consideration for heat pump applications.

Maintaining a tank temperature of 45 F and the water rate through the air coil at the maximum of about 18 gpm with the blower on low speed has worked out very well for cooling and also for dehumidification as long as the outside temperature is 85 F or above.

Dehumidification Without Cooling

Summer comfort in a relatively humid climate, with daytime temperatures between 90 and 95 F followed by night temperatures about 70 F and night humidity rising nearly 100 percent, requires dehumidification, with little or no cooling, or even with a net sensible heating effect. It's difficult to sleep when the air is humid, even if the air is cool enough. Where the house is to be kept closed even when cooling is not needed, as would be the case

for hay fever sufferers, dehumidification without cooling becomes an absolute necessity to comfort.

The usual cooling system, including mine as it now stands, won't operate if the room thermostat doesn't call for cooling, and if it doesn't run, it doesn't dehumidify. If you set the thermostat low enough to make it run, then it gets too cold for comfort.

The solution appears to be to control the blower and air coil pump with a humidistat as well as the cooling thermostat so that they will work when either of these controls is closed. This will make the house too cold at times, so we will use the heat in the well water coming

(This article continued on page 129)

TABLE 2—HEATING DATA for Wisconsin heat pump test house

	Coldest Day January 17, 1954	October 1, 1953 to June 11, 1954
Degree-days (65 F base) Truax Field	68	6419
Electrical energy expended in kwhr for heat collection and storage:		
well pump	5.6	561
refrigeration compressor	64.2	5792
circulation pump to tank	3.8	382
	73.6	6735
per degree-day	1.08	1.05
Electrical energy expended in kwhr for distribution and ventilation:		
pumps to air coil	2.9	488
blower	5.4	935
	8.3	1423
per degree-day12	.22
Total kwhr for heating system	81.9	8158
per degree-day	1.20	1.27
Water handled (cu ft):		
from well	2240	223,587
circulation to storage tank	1314	127,084
circulation to air coil	—	115,829
average cfh from well	171	176
Average watts input:		
well pump	429	437
compressor	4912	4600
Compressor hr operated	13.07	1258
Hours of blower operation:		
high speed	11	500
low speed	13	3900
total	24	4400
average per day	24	16

TABLE 3—COOLING OPERATION for a Wisconsin heat pump test house June 12, 1954 to July 31, 1954

Days cooling used	27	
Hr of compressor operation	87.68	
Compressor cycles during period	103	
Average hr operated per cycle85	
Kwhr used for cooling:		
compressor	400.5	
well pump	26.8	
circulation pump to tank	29.5	
	456.8	
heat storage and rejection	456.8	
circulation pumps to air coil and blower	67.8	
	524.6	
total power used for cooling	524.6	
average per day cooling was used	19.4	
Water handled (cu ft):		Average cfh
well water	2673	30.6
water through evaporator	14830	170
water through air coil	19040	—
Average watts input:		
well pump	306	
compressor	4570	
circulation pump, evaporator to tank	336	
Tank temperature control setting, 49 F on, 44 F off		



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THREE GREAT ENGINES—The "Jobmaster 261" engine* for extra heavy hauling. The "Thriftmaster 235" or "Loadmaster 235" for light-, medium- and heavy-duty hauling. **TRUCK HYDRA-MATIC TRANSMISSION***—offered on ½-, ¾- and 1-ton models. Heavy-Duty **SYNCHRO-MESH TRANSMISSION**—for fast, smooth shifting. **DIAPHRAGM SPRING CLUTCH**—positive-action engagement. **HYPOID REAR AXLE**—for longer life on all models. **TORQUE-ACTION BRAKES**—on all wheels on light- and medium-duty models. **TWIN-ACTION REAR WHEEL BRAKES**—on heavy-duty models. **DUAL-SHOE PARKING BRAKE**—greater holding ability on heavy-duty models. **RIDE CONTROL SEAT***—eliminates back-rubbing. **LARGE UNIT-DESIGNED PICKUP AND PLATFORM STAKE BODIES**—give trip-saving load space. **COMFORTMASTER CAB**—offers greater comfort, convenience and safety. **PANORAMIC WINDSHIELD**—for increased driver vision. **WIDE-BASE WHEELS**—for increased tire mileage. **BALL-GEAR STEERING**—easier, safer handling. **ADVANCE-DESIGN STYLING**—rugged, handsome appearance.

*Optional at extra cost. Ride Control Seat is available on all cabs of 1½- and 2-ton models, standard cabs only in other models. "Jobmaster 261" engine available on 2-ton models, truck Hydra-Matic transmission on ½-, ¾- and 1-ton models.

SHOW SECTION

Philadelphia
January 24 — 28

**Air Conditioning Exposition — 12th
International Heating & Ventilating
Exposition 61st Annual Meeting
of the American Society of Heating
and Air-Conditioning Engineers**

EXPOSITION

Opens Monday at 2 p.m. at the Commercial Museum, and daily Tuesday through Friday at 12 noon. Closing hour is 10 p.m., except on Friday at 6 p.m. See list of exhibitors and diagram of the exposition layout for full information on "who, what and where."

ASHAE MEETING

Technical sessions at 9:30 a.m. Monday, Tuesday, Wednesday and Thursday at the Bellevue-Stratford hotel.



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EXPOSITION EXHIBITORS AND THEIR EXHIBITS

HERE ARE THE names of the exhibitors who are scheduled for the 12th Air Conditioning Exposition — the International Heating & Ventilating Exposition, per latest advice at press time from the exposition management. Those listed with information on the products they will exhibit and the names of representatives who will be in

attendance furnished these details direct to the publisher. With the booth numbers and the accompanying diagram of the exhibit hall, which are published here, each exhibitor is easily located.

The exposition is under the management of the International Exposition Co., E. K. Stevens, manager.

ACEC ELECTRIC CORP., 40 E. 49th St., New York 17, N. Y.—Booth 426

In attendance: C. C. Persily, H. R. Feder, E. Allen, J. Baron, G. Sperl, G. Rahenkamp, E. Falleur, T. McVeigh, J. Dricot, D. Wandycz.

Exhibiting: Electric motors of the following types — single phase fractional, three phase fractional, totally enclosed fan cooled, open drip proof, type "C" face mounted, and explosionproof. Cut-aways of several motors and large photos will illustrate the operation and quality of components and materials in these motors.

ACME INDUSTRIES, INC., 600 N. Mechanic St., Jackson, Mich.—Booth 501

In attendance: K. A. Weatherwax, P. A. Weatherwax, E. D. Dunphy, C. W. Millsom, D. G. Merrill, W. H. Peters, J. J. Bell, H. W. Smith, W. C. Rehor, P. Butterfield, M. A. Sheffler, Hal Margulis, K. D. Cunningham, J. T. Maloney, R. C. Deeg.

Exhibiting: "Flow-cold" packaged chiller, "Flow-temp" heat pump, cooling towers, evaporative condenser, "Flow-therm" packaged chiller, "Dry-Ex" water chiller, condensers, heat exchangers. Evaporative condensers and cooling towers, water-to-water heat pump, and flexible packaged chiller will be featured.

ACME MFG. CO., 7500 State Rd., Philadelphia 36, Pa.—Booth S-18

In attendance: Eugene Feiner, Thos. A. McGinley, D. H. Ruff.

Exhibiting: Pre-fab forced air fittings in aluminum and galvanized sheet metal, pipe and elbows. Seven piece elbow packaging will be featured.

ACRO MFG. CO.—see CRISE CONTROLS DIV.

ADDISON PRODUCTS CO., Addison, Mich.—Booth C-62

In attendance: V. C. Knight, S. E. Vickers, M. A. Shantz, R. T. Smith, G. I. Boone, R. B. Grisbrook, Leo Freitas, J. A. Knight, K. F. Rumohr.

Exhibiting: Water cooled and air cooled residential packaged air conditioning systems in sizes 1½ hp through 5 hp.

ADELTA MFG. CO., INC., 21st and Ellsworth Sts., Philadelphia 46, Pa.—Booth 634

In attendance: Martin Corbman, Robert Corbman, Angelo Fasulo, Martin Posner, Morris Portnoy, Sid Schwartz, Bill Webster, Ray Westlund.

Exhibiting: Standardized pipe, duct and fittings, featuring "Nu-Lock" pipe and "Snap-Lock" trunk.

AFFILIATED GAS EQUIPMENT, INC.—see BRYANT HEATER DIV.

AIR CONDITIONING & REFRIGERATION NEWS, 450 W. Fort St., Detroit, Mich.—Booth 5

Exhibiting: Publication

AIR CONTROL PRODUCTS, INC., Coopersville, Mich.—Booth 25

In attendance: R. C. Hackenbruch, D. E. Stoll, W. A. Clark, P. G. Montgomery, G. G. Leonard, E. G. Biela, C. E. Denton, George Arehart.

Exhibiting: Perimeter diffusers — floor, baseboard, wall; visionproof grilles; return air grilles; adjustable ceiling ventilators; stack-head dampers; ceiling diffusers; air conditioning registers and grilles; installation frames; return air intakes; gravity registers; floor registers and return air faces; ventilators. A new perimeter baseboard diffuser will be featured.

AIR CONTROLS, INC., Div. of THE CLEVELAND HEATER CO., 2310 Superior Ave., Cleveland 14, Ohio—Booth 617

In attendance: B. G. Krause, S. S. Minnich, A. E. Friedman.

Exhibiting: Propeller fans, window fans, attic fans, blower-filter units, air conditioning blowers. A direct drive blower will be featured.

AIR DEVICES, INC., 185 Madison Ave., New York 16, N. Y.—Booth 533

In attendance: C. M. O'Day, G. J. Sweeney, P. O. Daves, T. A. Hughes, J. F. Scanlan.

Exhibiting: "Agitair" air diffusers, filters, exhausters.

AIRFAN ENGINEERING CO., 7401 Telegraph Rd., Los Angeles 22, Calif.—Booth C-25

AIR-MAZE CORP., 25000 Miles Rd., Cleveland 28, Ohio—Booth 109

In attendance: W. B. Watterson, F. P. Purvis, N. L. Lamprecht, B. T. Church, H. D. Cupitt.

Exhibiting: "Electromaze" electronic air cleaner, "Automaze Pulse-Action" automatic air filter, and air filter panels. New automatic cleaning and recharging accessory will be featured.

AIR-PATH PRODUCTS CO., 4620 Doll Ave., Baltimore 15, Md.—Booth S-81

In attendance: Robert A. Lucas, Carl E. Trier, William P. Flanagan, Allen P. Alt, Sr., George W. Mitchell, Bruce R. Kane, George Wahl, Raymond F. Weisman, F. C. Clifford, J. R. Dowdell, Walter Murphy, Joseph Merrill, Douglas Palmer, O. V. Overcash.

Exhibiting: Air intake louvers, back-draft dampers, motor operated dampers, door grilles, opposed blade dampers, fire dampers, multiple blade dampers, counterbalanced dampers, fan dampers, weatherproof louver dampers, counterbalanced relief dampers.

AIR & REFRIGERATION CORP., 439 Madison Ave., New York 22, N.Y.—Booth 69

In attendance: Walter L. Fleisher, Daniel C. Lindsay, Harvey S. Dutcher, Joseph H. Burges, Robert W. Gaines, Harry C. Jones, Richard W. Burges, Joseph L. Blackshaw.

Exhibiting: Articulated air conditioning which features "coordinated design of unlimited capacity" for industrial applications, with

housing of factory insulated panels for indoor or outside installation. Plenum ahead of dehumidifier utilizes "A & R" louver dampers for controlled mixing of air quantities.

AIRTEMP DIV., CHRYSLER CORP., P.O. Box 1037, Dayton 1, Ohio—Booths 636 to 646

AIRTHERM MFG. CO., 700 S. Spring Ave., St. Louis 10, Mo.—Booth 713

In attendance: F. P. Kohlbry, M. Cobb, R. O. Reeves, J. C. Watkins, Jos. Cuba, John J. Bertram, Jr.

Exhibiting: Convectors, unit heaters (steam or hot water), gas fired unit heaters, direct fired heaters (gas or oil), and blower fan unit heaters.

AJAX BOILER & HEATER CO., 1519 W. 132nd St., Gardena, Calif.—Booth S-34

In attendance: Gregory N. Laushkin.

Exhibiting: Gas and oil fired water heating boilers featuring metalized headers in conjunction with copper tubes, "thus making a boiler with a non-corrosive water surface," furnished on both oil and gas fired jobs. Information will be available on sizing boilers for swimming pools.

A-J MFG. CO., 2119 Washington St., Kansas City 8, Mo.—Booth 413

In attendance: Arthur S. Hurt, Jr., Ernest S. Preuit, Margaret E. Hurt.

Exhibiting: Registers and grilles. New air conditioning supply and return air registers and grilles and opposed blade volume control will be featured.

ALCO VALVE CO., 865 Kingsland Ave., St. Louis 5, Mo.—Booth 322

In attendance: John E. Dube, George J. Boepple, A. L. Baker, T. J. Phillips, John A. Schenk, R. Willner, Erwin Lodwig, Robert E. Spence, H. A. C. Smith, Jack L. Barley, Ralph Tillney, Lyle Houghton, Richard Baseler.

Exhibiting: Thermostatic expansion valves (½ ton to 200 tons), solenoid valves, suction pressure regulators, distributors. Operating demonstration showing full range of distribution of new refrigerant distributor with minimum and maximum load control with thermo expansion valve will be featured.

ALDRICH CO., Wyoming, Ill.—Booths 630-632

In attendance: P. M. Stephenson, A. C. Blaisdell, B. Mulder, G. C. Hench, L. R. Williams.

Exhibiting: "Heat-Pak" and "Gulfstream" low pressure steel boiler-burner units (oil fired and gas fired); high pressure conversion oil burners. New boiler-burner package units incorporating installation and service features in six sizes, 243,000 to 594,000 Btu per hr net rating, and new burner with firing range of 4.5 to 10 gph will be featured.

ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis.—Booths 338-340-342

In attendance: L. M. Perkins, H. G. Rosenkranz, G. F. Pain, C. O. Sargent, D. V. Listino, R. P. Seaton, C. M. Snyder, R. W. Sundeen.
Exhibiting: Electric motor control.

ALLIS-CHALMERS MFG. CO., P.O. Box 512, Milwaukee 1, Wis.—Booth C-19

In attendance: A. D. Brown, J. R. Allen, R. H. Black, N. L. Danforth, H. E. Dickinson, J. H. Hadley, H. H. Kessler, H. E. Lanphear, C. B. Rumble, Jr., W. H. Taylor, W. J. Weaver, R. N. Brown.

Exhibiting: Motors, "Texrope" v-belt drive equipment, pumps.

AMERICAN AIR FILTER CO., INC., 215 Central Ave., Louisville 8, Ky.—Booths C-116, C-118, C-122, C-126, C-130

In attendance: W. G. Frank, John Hellstrom, R. H. Nelson, John McConnell, Arthur Nutting, Howard Fitch, Harry Noles, Robert F. Walker, I. W. Clark, Charles S. Stock, C. C. Sowerby, John M. Kane, James May, Charles Wright, Arthur Miller, Frank Carroll, John J. Willis, Frank Boone, Wallace Bateman, Dale Barnstable, John Kline, William J. Killian, W. N. Murray, John Frazier, Stan Fain, Robert DeLay.

Exhibiting: "Roll-O-Matic," "Multi-Duty," "Electro-Matic," "Electro-Cell" with type H washer, "Electro-PL," "Ameglas" filters, "Electro-Klean," heating and ventilating units, centrifugal fans, propeller fans, unit heaters, unit ventilators. "Roll-O-Matic," "Electro-Klean," heating and ventilating units and unit heaters will be featured.

AMERICAN AIR FILTER CO., HERMAN NELSON DIV.—see NELSON DIV., HERMAN

AMERICAN ARTISAN, 6 N. Michigan Ave., Chicago 2, Ill.—Booth 12

In attendance: Charles E. Price, Wallace J. Osborn, Robert A. Jack, George C. Cutler, C. M. Burnam, Jr., Clyde M. Barnes, Robert J. Osborn, James E. Sacra, David V. Mahan, Thomas V. Johnson.

Exhibiting: American Artisan, technical books, market data.

AMERICAN BLOWER CORP., Detroit 32, Mich.—Booths 22 and 24

In attendance: Philadelphia branch office sales personnel.

Exhibiting: "Ventura" propeller fans, "Gyrol" fluid drive, "Venturafin" unit heaters, and air conditioning equipment.

AMERICAN COILS CO., 360 Thomas St., Newark, N.J.—Booth 613

In attendance: Michael Parcaro, James Turner, Geo. Mathews, Pete Hatcher, Louis Merigolo, Bill Dinger, Larry Jackewicz.

Exhibiting: Air conditioners, 3 through 20 tons; heating coils, 3 through 20 tons; heat pumps, 2 through 20 tons, with newly designed condenser; water chillers, 3 through 20 tons, displayed publicly for the first time; forced draft convectors. Newly designed "A C I" air conditioners will be on display; special features include "curvature" fins on cooling coil for greater efficiency, staggered air flow, two-tone enameled finish, complete twin refrigeration circuits on 10 and 15 ton models, choice of semi-hermetic or open type compressor equipment.

AMERICAN DISTRICT STEAM CO., INC., Bryant St., N. Tonawanda, N. Y.—Booths 705-707

In attendance: A. Ackerman, E. Averett, M. Hannah, J. Shade, L. VanOrden, J. Webb, M. Wilson.

Exhibiting: Expansion joints, heat exchangers, strainers, separators, traps. Dramatization of new East and West Coast manufacturing facilities will be featured.

AMERICAN FURNACE CO., 1300 Hampton Ave., St. Louis 10, Mo.—Booth 77

AMERICAN ARTISAN, JANUARY 1955

In attendance: C. H. Franke, E. H. Spellmeyer, R. L. Archibald, R. A. Cromwell, Robt. Meigs, J. S. Schlank, H. R. Mitchell.

Exhibiting: Warm air heating, cooling, and combination heating and cooling.

AMERICAN GILSONITE CO., 134 W. Broadway, Salt Lake City 1, Utah—Booth 847

In attendance: L. C. Wooster, E. H. Owen, J. F. Williams, M. A. Hanna, H. L. Armstrong.

Exhibiting: "Gilsulate" three zone conduit system. There will also be a hot exhibit box showing the resistance to heat loss by thermometer and thermocouple readings of "Gilsulate" for insulating and protecting underground hot pipes.

AMERICAN HYDROVAC, DIV. OF PITZ FOUNDRY, INC., 290 Scholes St., Brooklyn 6, N.Y.—Booths 735-737

In attendance: Albert C. Hauser, John C. Pedersen, R. M. Pitz, Karl Latch, Thomas C. Ingle.

Exhibiting: New vacuum heating pump unit, jet type vacuum heating unit, condensate return units with cast iron receivers. Vacuum heating pumping unit with a newly designed all bronze rotary vacuum pump operating independently of condensate pumps, with a newly designed cast iron receiver and low inlet return, will be featured.

AMERICAN IRON AND STEEL INSTITUTE —see COMMITTEE ON STEEL PIPE RESEARCH

AMERICAN MACHINE AND METALS, INC. —see DeBOTHEZAT FANS DIV.

AMERICAN RADIATOR & STANDARD SANITARY CORP., P.O. Box 1226, Pittsburgh 30, Pa.—Booths 26, 28, 47, 49

In attendance: Robert J. Wiley, James E. Harris, G. Gadarian, R. T. Sturges, H. V. Voye, E. W. Lindstrom.

Exhibiting: "Empire" boiler, "Arcoliner" boiler, "Oakmont" boiler, multifin convector, "Arcoflame" oil burner, "Stanflame" gas burner, "Temtrim" industrial fin type radiation, domestic hot water heater, 2 hp chiller unit, "Sunrad" radiator, "Remotaire" heating and air conditioning unit, "Radiatrim" baseboard panel heating. An action display of cutting and installing "Heatrim" baseboard panel heating will be featured.

AMERICAN RADIATOR & STANDARD SANITARY CORP., SUNBEAM AIR CONDITIONER DIV.—see SUNBEAM AIR CONDITIONER DIV.

AMERICAN SOCIETY OF HEATING AND AIR-CONDITIONING ENGINEERS, Headquarters—62 Worth St., New York 13, N. Y. Research Laboratory—7218 Euclid Ave., Cleveland, Ohio—Booth 68

In attendance: W. M. Vidulich, D. T. Donovan, D. J. Vild, A. V. Hutchinson, C. H. Flink, C. H. B. Hotchkiss, R. F. Duysters, E. R. Kaiser, C. M. Humphreys.

Exhibiting: Demonstrations of Research Laboratory work on air infiltration, identification of air contaminants and heat reflection will be featured. Background display will highlight research, publication, and membership activities of the society. Use of National Bureau of Standards' katharometer for measuring air infiltration, utilizing helium mixed with room air as a tracer gas to show dilution produced by infiltration will be shown. Centrifugal sedimentation apparatus, developed by University of Minnesota, which measures dust particles of 1/100,000 of an inch will also be featured.

AMMERMAN CO., C. L., 110 N. Second St., Minneapolis 1, Minn.—Booth S-49

In attendance: C. L. Ammerman, G. A. Ammerman, T. L. Ammerman, C. E. Sparrow

Exhibiting: "AirXpeler" and "AirMpelor" power roof exhausters, both direct drive and belt driven models, of modern, low

silhouette design. The largest units move 47,000 cfm and are only 36 in. high.

ANDERSON CO., THE V. D., 1935 W. 96th St., Cleveland 2, Ohio—Booth 725

Exhibiting: "Super-Silvertop" steam traps, float type traps, and "Hi-eF" purifiers, and featuring "Heat-Kwik Silvertop" traps.

ANEMOSTAT CORP. OF AMERICA, 10 E. 39th St., New York 16, N. Y.—Booths 406-408

In attendance: A. R. Gilbert, F. Honerkamp, R. F. Hayes, F. J. Kurth, W. F. Peters, A. Rust-Oppenheim, V. F. Self, G. R. Wallen.

Exhibiting: Air diffusers, high velocity units, and "Anemotherm". Display of operating high velocity units and air diffusers for conventional systems will be featured.

A-P CONTROLS CORP., 2540 N. 32nd St., Milwaukee 45, Wis.—Booth 744

In attendance: R. W. Johnson, Dil Moerick, Tom Melville, Arno Schubert, Bob Sloane, Larry Thompson, Jack Cowan, Brad Carroll, Dick Morton, Al Neva, R. Ludwig, Walter Ellinghoel.

Exhibiting: Oil controls, gas controls, refrigeration controls and valves made by new subsidiary, Milwaukee Valve Co. New "Gasapack" control for space heaters will be featured.

ARMSTRONG FURNACE CO., 851 W. Third Ave., Columbus 8, Ohio—Booths 1 & 3

In attendance: D. H. Kinnan, W. J. Olsen, L. G. Hickok, C. L. Brooks, J. R. Swinehart, T. J. Hughes, C. L. Bryson, P. L. Kutscher.

Exhibiting: Gas fired horizontal furnace; "Companion Unit" water cooled summer air conditioner (displayed in conjunction with winter air conditioning furnace); and air cooled summer air conditioning equipment.

ARMSTRONG MACHINE WORKS, 816 Maple St., Three Rivers, Mich.—Booths 626-628

In attendance: O. E. Ulrich, Jr., C. R. Daugherty, A. E. Armstrong.

Exhibiting: Glass model of steam trap operating on 7 lb steam pressure; strainers; and featuring hot water heating controls.

ARROW-HART & HEGEMAN ELECTRIC CO., 103 Hawthorn St., Hartford 6, Conn.—Booth S-72

ATLANTIC PIPEBENDING & FABRICATING CORP., P.O. Box 157, Wood-Ridge, N. J.—Booth 308

AUER REGISTER CO., THE, 6600 Clement Ave., Cleveland 5, Ohio—Booth C-59

In attendance: George R. Metzger, Herbert F. Curtis, Allen H. Bechtel, Floyd A. Hancock.

Exhibiting: Registers and grilles for the heating and air conditioning industry, with emphasis on "Perfusaire" for perimeter heating and cooling, and introducing opposed blade dampers for the "Streamliner" line.

AURORA PUMP DIV., THE NEW YORK AIR BRAKE CO., 619 Loucks St., Aurora, Ill.—Booths C-27, C-29

In attendance: G. W. Anderson, M. S. Maleson, L. Maleson, S. R. Gerhart, L. R. Parrish, Mario Corti, Carl Swenson.

Exhibiting: Centrifugal and turbine type pumps.

AU-TEMP-CO CORP., 657 Broadway, New York 12, N. Y.—Booth C-34

In attendance: Edward J. Zeitlin, Harry Zeitlin, Al Fowler, Lee Leighton.

Exhibiting: Electronic control and motorized valves.

AUTO-FLO CORP., 14590 Schaefer Highway, Detroit 27, Mich.—Booth 32

In attendance: Donald B. Sutherland, Milton Perlman, Joseph Perlman, Victor Vogel, Ray Westlund, P. J. Halter, Harold Burke, James Miner, Bernard Magiday, Hal Michelman, Irving Suss, Arthur Freidman, R. H. Sweeney.
Exhibiting: Humidifiers, fuel oil filter, fuel oil cartridge.

AUTOMATIC DEVICES CO., INC., 714 Hillgrove Ave., Western Springs, Ill.—Booth 314

In attendance: H. T. Kucera, O. W. Dobson, Walter MacPherson, Martin Heffler.

Exhibiting: "Weather-Man", "Weather-Flo" and 3-way "Weather-Flo." New regulator for controlling heat flow to all classes of multiple occupancy buildings, regardless of kind or type of heating system, will be featured. Unit is designed to allow the installation of the control mechanism indoors with only the temperature responsive bulb being installed outdoors.

AUTOMATIC FIRING CORP., THE, 4417 Oleatha Ave., St. Louis 16, Mo.—Booths 905-907

In attendance: James J. Lee, F. J. Hollerbach, Gene Gunkel, Ed Bixler, Robert Neuenhahn.
Exhibiting: "Cool-A-Matic" air conditioning units.

AVCO MFG. CO., LYCOMING DIV.—see SPENCER HEATER

BACHARACH INDUSTRIAL INSTRUMENT CO., 7301 Penn Ave., Pittsburgh 8, Pa.—Booth 415

In attendance: George Gardner, Charles Kroschel, Rudolph Ulrich, J. A. Stein, Jerry Snoblen, J. W. Smith.

Exhibiting: "Fyrite" combustion testing instruments, including CO₂ analyzer, stack thermometer, "Draftrite" draft gage and "True-Spot" smoke tester; "Tempscribe" temperature and operation recorders and "Florite" direct reading velocity meter. Filter gage which signals when to change filters on warm air heating systems and air conditioning units will be featured.

BALTIMORE AIRCOIL CO., INC., 2615-35 Mathews St., Baltimore 18, Md.—Booth C-17

In attendance: John Engalitcheff, Jr., R. R. Forseille, A. M. Norris, R. W. Pentecost, George Klein, L. R. Bookhulze, Mrs. M. K. Kok, Joseph T. Pope, William Brown.

Exhibiting: Water saving heat transfer equipment. New lines of equipment will be introduced.

BARBER-COLMAN CO., 1300 Rock St., Rockford, Ill.—Booth 602

In attendance: C. J. Braatz, E. A. Greenlee, C. P. Yates, J. E. Wright, J. R. Muraski, A. W. Schach, J. A. Dunn, W. G. Young, D. L. Dittloff, H. P. Deacon, M. Dahlgren, J. P. Sullivan, W. W. Kennedy.

Exhibiting: Electric and electronic controls and air distribution products for heating, ventilating and air conditioning.

BARBER-COLMAN CO., WHEELCO INSTRUMENTS DIV., 1300 Rock St., Rockford, Ill.—Booth 337

In attendance: R. A. Schoenfeld, H. Proske, C. G. Holbrook, P. F. Stevens, J. A. Wright, J. E. Sauerman, F. E. Thiel, R. W. Channell, S. Kuta, J. W. Hancock, W. E. Karslo, K. Day, S. Pachyn, H. Shugars.

Exhibiting: New "Flame-otrol" electronic combustion safeguard systems for oil and gas fired furnaces, ovens, boilers, kilns and dryers will be featured, as will remote indicating thermometers for multi-station indications of space and system temperatures.

BARKOW MFG. CO., INC., AUG. G., 2230 S. 43rd St., Milwaukee 15, Wisc.—Booth C-37

BARNES & JONES, INC., 128 Brookside Ave., Jamaica Plain, Boston, Mass.—Booth 63

BARRY BLOWER CO., 3100 California St., N. E., Minneapolis 18, Minn.—Booth S-49

In attendance: Benjamin H. Barry, Herman Freidson.

Exhibiting: Blower wheels, blower housings.

BELL & GOSSETT CO., 8200 N. Austin Ave., Morton Grove, Ill.—Booths 828-832

In attendance: E. J. Gossett, R. E. Moore, C. E. Pullum, W. A. Boone, A. Meeg, Frank Gall, H. R. Henke, R. A. Patterson and direct factory and district representatives from the entire United States.

Exhibiting: "B&G Hydro-Flo" products for both heated and chilled water systems. Several brand new products will be exhibited.

BERGER FURNACE CORP., 4th & Main Sts., Belle Vernon, Pa.—Booths S-71, S-73

In attendance: A. H. Berger, H. W. Abrams and others.

Exhibiting: "Inversaire" counterflow winter air conditioner, gas fired furnace, oil fired furnace, and featuring combination heating and cooling unit (air cooled) as well as "Perima-Base" warm air radiant baseboard for heating and cooling.

BERTRAM CO., THE HARVEY P., 561 Reading Rd., Cincinnati 2, Ohio—Booth S-25

In attendance: Harvey P. Bertram, Arthur P. Butler.

Exhibiting: "Industrial Air" induced draft fan and "Pyrovent" roof ventilator will be featured.

BETT-MARR MFG. CO., 621 E. Excelsior Blvd., Hopkins, Minn.—Booth 441

In attendance: Richard L. Linquist, Joseph M. Dillon.

Exhibiting: 24 in. three wheel band saw, for cutting stacked sheet metal, CR, black iron, stainless steel, etc.

B-I-F INDUSTRIES, INC.—see BUILDERS-PROVIDENCE

BINKS MFG. CO., 3114-44 Carroll Ave., Chicago 12, Ill.—Booth 236

In attendance: C. R. Kranz, A. G. Stacy, L. A. Hamilton.

Exhibiting: Cooling towers, New 2 and 3 ton residence cooling tower will be featured.

BONAIR PRODUCTS, INC., 5010 Warrington Ave., Philadelphia 43, Pa.—Booths S-3 and S-5

In attendance: Frank A. McKee, Joseph L. McHale, Carl W. McCarty, Edwin J. Lynch, Steven Szibler, Jr., William L. McHale, John A. Callahan, Jr.

Exhibiting: Air and water cooled residential air conditioning equipment, gas and oil fired warm air furnaces. Year 'round air conditioning units for the project builder will be featured.

BORG-WARNER CORP., HYDRALINE PRODUCTS DIV.—see HYDRALINE PRODUCTS DIV.

BRANDES CO., 2046 Winnebago St., Madison 4, Wis.—Booth S-17

In attendance: E. E. Brandes, Fred Voth.

Exhibiting: Warm air baseboard and warm air baseboard diffusers. New baseboard lines will be shown for the first time.

BREIDERT CO., THE G. C., P.O. Box 1190, 13690 Vaughn St., San Fernando, Calif.—Booth S-107

In attendance: George M. Breidert, Roswell S. Jones, H. Edward Gross.

Exhibiting: Power roof ventilators, "Air-X-Hauster," vent flue caps and chimney tops, marine ventilators.

BROOKSIDE PRODUCTS CO., INC., McCordsville, Ind.—Booths S-52, S-54

In attendance: Claude A. Forth, Sr., Claude A. Forth, Jr., William Donahue.

Exhibiting: Blower wheels, fan blades, and ventilating units will be exhibited for the first time.

BROWN PRODUCTS CO., 97-12 Metropolitan Ave., Forest Hills 75, N. Y.—Booth 703

In attendance: A. Brown, H. W. Gray, J. Aronczyk, O. Mann.

Exhibiting: Baseboard radiation, fintube radiation, air cooled water chilling units, remote room air conditioning units, convectors, ceiling type air conditioning units. Air cooled water chilling units, remote room air conditioning units and ceiling type air conditioning units will be featured.

BRUNDAGE CO., THE, 500 N. Park St., Kalamazoo 11, Mich.—Booth 331

In attendance: H. F. Brundage, F. W. Brundage, W. A. Rockafeld, L. C. Kroes, Fred E. Bottiger, Walter F. Briggs, Donald Johnston, George D. Kingsland, Bruce McLouth, E. N. Moncrief, B. H. Nunnally, Lou Reining, John Sibarum, N. W. Wattles, Ray Westlund, F. F. Symington, Jack Tracy.

Exhibiting: Complete line of air conditioning and heating blowers in belt drive and direct drive applications, universal blower to accomplish any discharge, blower filter package units and exhausters. New universal blower will be featured.

BRUNNER MFG. CO., 1821 Broad St., Utica 1, N. Y.—Booth 600

In attendance: A. G. Zumbun, F. C. Hawk, J. W. Thomas, J. B. Fleming, F. E. Wilson, W. M. Cashion.

Exhibiting: 50 hp condensing units, 3 hp semi-hermetic motor-compressor.

BRYANT HEATER DIV., AFFILIATED GAS EQUIPMENT, INC., 17825 St. Clair Ave., Cleveland 10, Ohio—Booth C-114

BUFFALO FORGE CO., 490 Broadway, Buffalo 4, N. Y.—Booths 522-526

In attendance: C. C. Cheyney, W. R. Heath, R. D. Madison, J. E. Gill, C. W. Lockhart, F. B. Stubinger, B. W. Ellis, J. H. Gregory, L. C. Davidson, R. F. Hunger, R. D. Robson, R. T. Thornton, R. Farnham, W. H. Holt, R. P. Warren, J. W. Kippshut, P. E. Evans, R. Jorgenson, F. C. Johns.

Exhibiting: "Limit Load" fan, multi-zone blow thru cabinet, 34 in. heavy duty propeller fan, 32 in. vaneaxial fan, fixed vanes for fan inlet bell, variable inlet vanes for fan inlet bell, "Breezeo" fans, and bronze-fitted pump. New horizontal multi-zone cabinet with square tubing structural frame and removable panels throughout for complete inspection and maintenance of internal parts will be featured. Vaneaxial "Spraybooth" fan, of particular interest to the paint and chemical application field, is of special design to permit periodic interior cleaning of accumulated foreign substances through large cleanout openings, and will also be featured.

BUILDERS-PROVIDENCE INC. (Division of B-I-F INDUSTRIES), 345 Harris Ave., Providence 1, R. I.—Booth C-43

In attendance: E. E. Litterick, F. W. Deutsch, S. R. Amylon.

Exhibiting: New "Dall" flow tube, dual ranging "Shuntflo" meters, "Propeloflo" meters, venturi insert nozzle, "Shuntflo" meter. The first two products will be featured.

BURGESS-MANNING CO., 5970 Northwest Highway, Chicago 31, Ill.—Booths 616-618

In attendance: D. W. Day, Allen Wilson, W. C. Kadow.

Exhibiting: "3-way" functional ceiling, providing radiant heating and radiant cooling with acoustic control and designed to eliminate thermal lag and over-ride.

BURNHAM CORP., Boiler Div., Main St., Irvington, N. Y.—Booth 401

In attendance: A. E. Bastedo, V. A. Good, H. J. Wines, F. R. Brophy, W. H. Samson, G. M. Corcoran, H. R. Way, W. C. Heagy, A. A. Ettore, R. F. Bogle, F. E. Adams.

Exhibiting: "Base-Ray" radiant baseboards, "Radiant" radiator, "Hide-Away" cooling unit, "Pace-Pak" factory assembled oil heating unit, gas boiler, "Pacemaker" oil boiler. Central cooling equipment for summer comfort teamed up with hot water baseboard radiant heating for winter comfort will be featured.

BUSH MFG. CO., THE, 179 South St., West Hartford 10, Conn.—Booth 250

In attendance: Cecil Boling, E. M. Flannery, J. A. Mulcahey, Joe Koren, C. T. Cavanaugh, J. K. Campbell, George J. Finck, George Moncher, George Luce, Joe Herrmann, Earle Bates, Hugo Basch, Milton Kalish, Leon Trane, George Davis, Perley Barker.

Exhibiting: Multi-zone units, new copper deck cooling tower, convectors, cooling coils, steam coils, baseboard radiation, finned pipe radiation, under-the-window unit. Package chiller, as manufactured by subsidiary, Heat-X, Inc., heat interchanger, inner fin shell and tube chillers and condensers will be featured.

BYERS CO., A. M., 1810 Clark Bldg., Liberty Ave., Pittsburgh 22, Pa.—Booth 240

In attendance: R. H. Clay, J. W. Cooper, H. K. King, V. C. Lawrence, J. H. Little, E. L. MacWhorter, J. Matthew, W. J. Mayer, J. J. Moore, R. J. Brimont.

Exhibiting: Wrought iron pipe and plate and featuring wrought iron cold drawn tubing.

CAMBRIDGE FILTER CORP., 738 Erie Blvd. East, Syracuse 3, N. Y.—Booth S-67

In attendance: David H. Northrup, Paul M. Engle, William W. Baldwin.

Exhibiting: "Absolute" filter, and featuring "Aerosolve" filter designed for multi-filter banks in industrial and comfort ventilation and air conditioning supply systems, and for filtration of exhaust gases. A new smoke test demonstrator will also be shown.

CAREY MFG. CO., PHILIP, Cincinnati 15, Ohio—Booth S-121

In attendance: W. C. Bowman, R. C. Bressan, F. J. Donohue, C. L. Hoshaw, H. K. Marcy, G. H. Milner, F. M. Nearing, J. C. Rector, C. D. Spaid, L. C. Underwood, E. S. Walls, C. M. Weber, C. H. Zimmerman.

Exhibiting: Commercial exhaust fan; pipe coverings (asbestos, 85% magnesia); cements, insulating, adhesive; insulation, block and sheet; heater, bathroom; asbestos papers; duct, insulated and acoustical. New commercial exhaust fan and new "MW-One" insulating and finishing cement will be featured.

CARNES CORP., Verona, Wis.—Booth 521

In attendance: W. R. Carnes, F. A. Freese, Arnold Crooke, Robert Rankel, Len Carr, Don McAuley, Bob Gorrell, Raymond Kreger.

Exhibiting: Ceiling air diffusers and power roof ventilators. New style, low contour, mushroom type centrifugal and axial flow models of roof ventilators and newly designed round, square and rectangular ceiling diffusers will be featured.

CARRIER CORP., 300 S. Geddes St., Syracuse 1, N. Y.—Booths 204-206

In attendance: G. B. Gillam, H. Hoffman, L. Church, E. Dafter, H. Peacock, A. A. Giannini, M. J. Wilson, D. W. Hoppock, R. H. Smiles, W. A. Lake, W. C. Egan, W. G. Hillen, M. J. Kane, F. Dale Meeder, J. Voigt.

Exhibiting: Residential air conditioning equipment, multi-room building air conditioning equipment, commercial (stores and shops) air conditioning equipment, and automatic ice makers.

CARVER PUMP CO., 1056 Hershey Ave., Muscatine, Iowa—Booth 743

In attendance: James E. Kuppe, Robert E. Tanner.

Exhibiting: Centrifugal pumps, featuring fractional horsepower motor driven pump.

CENTURY ELECTRIC CO., 1806 Pine St., St. Louis 3, Mo.—Booth 900

In attendance: R. N. Hill, G. C. Henderson, Fred Powers, R. Biller, L. Downing, F. Hatfield, W. D. Helm, R. A. Jervis, R. Moseman, J. M. Hicks, J. Clark, W. Nace, A. Neher, P. Gerst, H. McInerney.

Exhibiting: Fractional and integral horsepower motors (new re-rated line), new three speed capacitor type motor for the fan and blower industry.

CENTURY ENGINEERING CORP., 401 Third St., S. E., Cedar Rapids, Iowa—Booth 502

In attendance: B. J. Lattner, W. S. Moellering, J. O. Rosche, Charles Walker, A. E. Carr, E. A. Jones, Henry Gabel, G. I. Graham, M. M. MacKinnon, John S. Davis, R. F. Considine, E. J. Mettelka, Andrew Goidich, E. W. Johnson.

Exhibiting: Oil and gas furnaces (basement model, highboys, horizontal units); oil burners; gas conversion burner. New 1955 model oil burner will be featured.

CHACE CO., W. M., 1600 Beard Ave., Detroit 9, Mich.—Booth 316

CHAMPION BLOWER & FORGE CO., Charlotte St. & Harrisburg Ave., Lancaster, Pa.—Booth 643

In attendance: John A. Joyce, Henry K. Long, Harvey C. Gibney, John M. Kadlecik, Elmer F. Hirsch.

Exhibiting: Centrifugal fans and blowers (both steel and cast iron housings), attic fans, acid and rust-resistant fans. A new line of acid-resistant blowers will be featured.

CHAR-GALE MFG. CO., Route 2, Anoka, Minn.—Booth 726

In attendance: C. L. Johnston, L. C. Johnston, Nick J. Dovolis, Harley Sipprell, Joe LaTuff, George Standen.

Exhibiting: Ducts and fittings, elbows, rain goods, registers, grilles, floor diffusers, ceiling diffusers, baseboard diffusers, wall diffusers.

CHELSEA FAN & BLOWER CORP., 639 South Ave., Plainfield, N. J.—Booth 244

In attendance: E. W. Lohman, W. J. Lohman, Jr., C. J. Yamas, R. J. Hutchison, Jr.

Exhibiting: Window fans and industrial fans.

CHICAGO BLOWER CORP., 9867 Pacific Ave., Franklin Park, Ill.—Booth 48

In attendance: F. H. Gohl, E. R. Anderson, L. E. Flanders, Jr., D. M. Campbell, N. W. Cargill, F. G. Gerrish, E. Glenn Breeden, T. Houlihan.

Exhibiting: New centrifugal airfoil fan; new axial airfoil fan; "M.D." utility fan; turbo pressure blower; "Spid" steel plate induced draft fan (a new packaged centrifugal induced draft fan for boilers from 30 hp to 350 hp and 4500 EDR to 50,000 EDR); roof ventilator; experimental fan.

CHICAGO PUMP CO., 622 Diversey Pkwy., Chicago 14, Illinois—Booths 201 and 205

In attendance: G. D. Bers, M. Spiegel, L. Nechine, H. E. Martin, E. J. Lasworth, S. S. Whitby, P. S. Whitby, C. Lawrenz.

Exhibiting: Centrifugal pumps for booster service, hot and chilled water circulating; condensation pumps, "Flush Kleen" sewage ejector. Improved and expanded line of circulating pumps for hot and chilled water will be featured.

CHRYSLER CORP.—see AIRTEMP DIV.

CIRCLE AIR INDUSTRIES, INC., 244 Herkimer St., Brooklyn 16, N. Y.—Booth S-23

In attendance: Albert A. Paley, Murray Neckman, John P. McGinley, George McGrath, John J. Reilly, Charles Lowery.

Exhibiting: Standard electric convection heaters, baseboard electric convection heaters, standard dual air conditioners, baseboard dual air conditioners, cold generators. All products will feature built-in thermostats and in addition all dual air conditioners will feature a ten-point air volume control.

CLARAGE FAN CO., 619 Porter St., Kalamazoo 16, Mich.—Booth C-170

In attendance: R. A. Wasson, S. H. Downs, C. R. McConner, C. O. Fury, N. A. Melzer.

Exhibiting: Sprayed coil central station type dehumidifier, "Multitherm" unit, ventilation unit, ventilation fan with backward curve blades, furnace fan. A revised design of the sprayed coil unit for central system installation will be shown for the first time.

CLAYTON & LAMBERT MFG. CO., LAMNECK DIV., 1025 Lamneck St., Middletown, Ohio—Booth C-64

In attendance: R. F. Burger, Frank Gavaletz, Claude Forbes, Mahlon Driever, Roger Sherwood, W. B. Tyrrell.

Exhibiting: Air distribution pipe and fittings for heating and cooling; water heaters. Several new special fittings will be featured.

CLEAVER-BROOKS CO. (Boiler Div.), 326 E. Keefe Ave., Milwaukee 12, Wis.—Booth 147

In attendance: J. C. Cleaver, F. W. Hainer, F. A. Loebel, H. A. Holtz, O. E. Jacobsen, F. A. Phillips, J. W. Stevens, A. E. Miller, V. N. Harwood, W. C. Blake, F. A. Hopp, F. I. Rounds, A. A. Wood, H. R. White, P. A. Wright, R. B. Hickman.

Exhibiting: Self-contained boilers for heating. New line of such boilers will be featured.

CLEAVER-BROOKS CO. (Burner Div.), 326 E. Keefe Ave., Milwaukee 12, Wis.—Booth 932

In attendance: J. V. Resek, H. McCoy, W. DeMuth, M. Will.

Exhibiting: "Hev-E-Oil" burner line. New burners will be featured.

CLEVELAND HEATER CO.—see AIR CONTROLS, INC., DIV.

COBELL INDUSTRIES, INC., P.O. Box 1157, Fort Worth, Texas—Booth S-96

COLE HOT BLAST MFG. CO., 3817 S. Racine Ave., Chicago 9, Ill.—Booth S-76

In attendance: George H. Derbyshire, L. F. Mack, A. F. Wedderspoon.

Exhibiting: Gas fired domestic incinerators.

COLEMAN CO., INC., THE, 250 N. St. Francis Ave., Wichita 1, Kans.—Booths 539-543-547

In attendance: Sheldon Coleman, Ieland C. Ginn, Jack Kice, C. R. Douthitt, V. D. Call, H. M. Morton, L. L. White, L. T. Ash, W. McCollum.

Exhibiting: Summer air conditioners (self-contained and remote); gas and oil fired forced air furnaces (vertical, console and horizontal types); gas wall and floor furnaces; gas and oil fired space heaters; gas water heaters. Vertical and console furnaces, both gas and oil, summer air conditioning units; and several models of oil and gas fired space heaters will be featured.

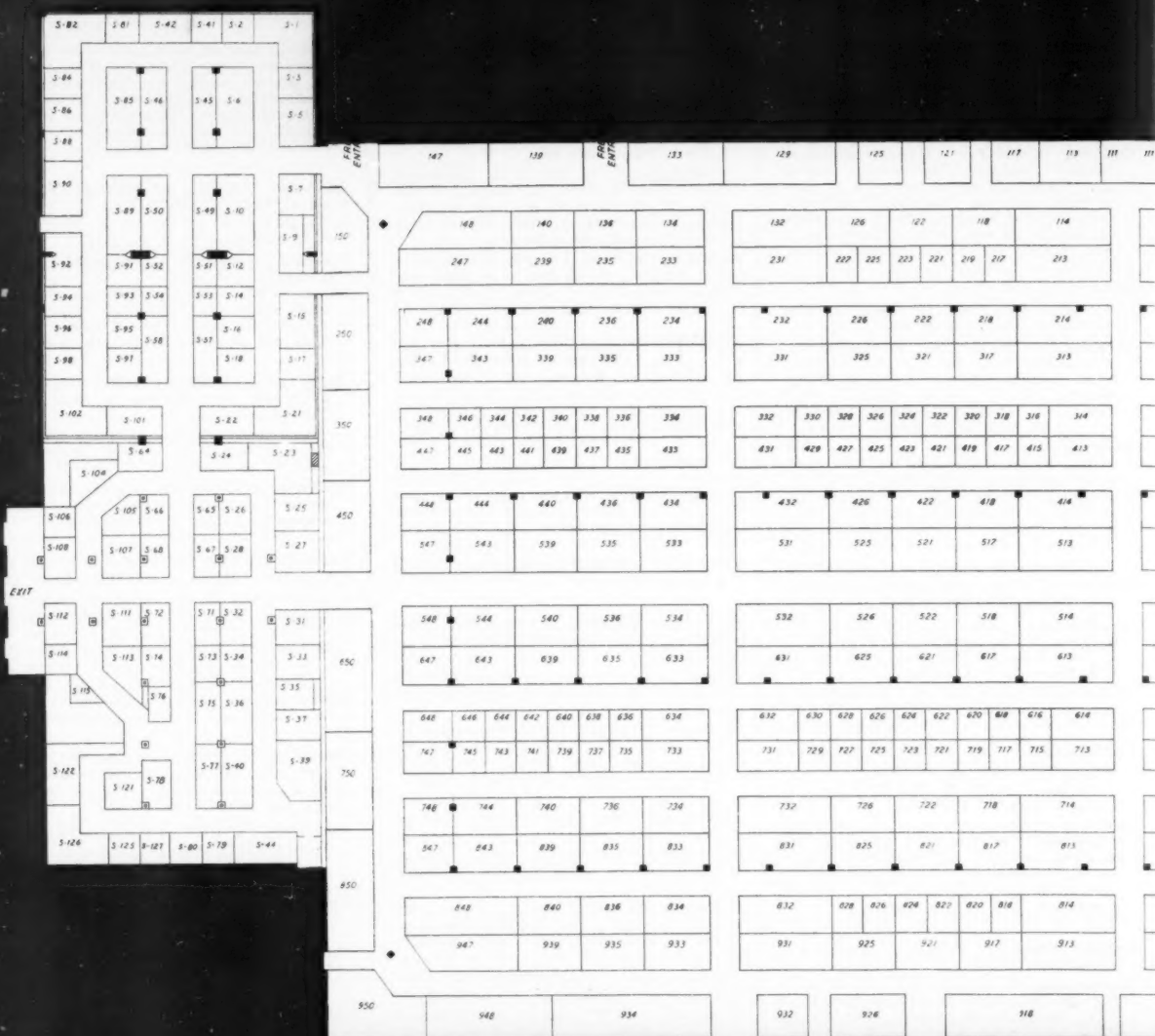
COLUMBIA BURNER CO., THE, 729 Ewing St., Toledo 7, Ohio—Booth C-35

In attendance: Arnold A. Muenzer, J. F. Capoun, C. C. Connelly.

Exhibiting: Gas conversion burners—multiple port, single port and inshot models. Inshot burner for converting oil to gas, and forced air gas furnaces, will be featured.

COMBUSTION CONTROL DIV., ELITRONICS CORP. OF AMERICA, 718 Beacon St., Boston 15, Mass.—Booth 55

In attendance: L. D. Sibley, B. E. Shaw, P.



Layout of the Exposition

K. Ryder, W. S. Tallon, E. F. Hall, L. F. Smith

Exhibiting: "Fireye" systems for automatic gas, oil, and combination fuel burners; for gas, oil, pulverized coal, process or combination fuel burners; for manually and semi-automatically ignited gas, oil, pulverized coal, or combination fuel burners; for commercial light oil, gas, and combination light oil/gas burners; smoke density indicators and recorders; packaged flame failure safeguard controls systems for automatic burners and for multi-burner power boilers; burner operating controls, limit switches, safety shutoff valves, and control accessories. New and improved smoke detection indicator system and packaged control systems for all burners will be shown for the first time.

COMBUSTIONEER DIV., THE STEEL PRODUCTS ENGINEERING CO., 1205 W. Co-

lumbia St., Springfield, Ohio—Booth 133

In attendance: H. W. Shirey, H. E. McCampbell, H. McCool, D. E. Linkenhoker, O. J. Puckett.

Exhibiting: Low pressure and high pressure oil burners, gas conversion burners, stokers, humidifiers. New gas conversion burner, humidifier and modulating gear case will be featured.

COMMERCIAL FILTERS CORP., 2 Main St., Melrose 76, Mass.—Booth 431

In attendance: J. R. Chisholm, R. L. Fielding, H. C. Corwin, H. A. Wilson, R. Schadler, W. J. Rossi.

Exhibiting: "Fulflo" oil burner filters and replacement honeycomb filter tubes for various capacities; fuel oil filters for bulk plants and delivery trucks; and filters for boiler feed-water.

COMMERCIAL REFRIGERATION AND AIR CONDITIONING, 1240 Ontario St., Cleveland 13, Ohio—Booth S-12

Exhibiting: Publication.

COMMITTEE ON STEEL PIPE RESEARCH, AMERICAN IRON AND STEEL INSTITUTE, 350 Fifth Ave., New York 1, N. Y.—Booth 309

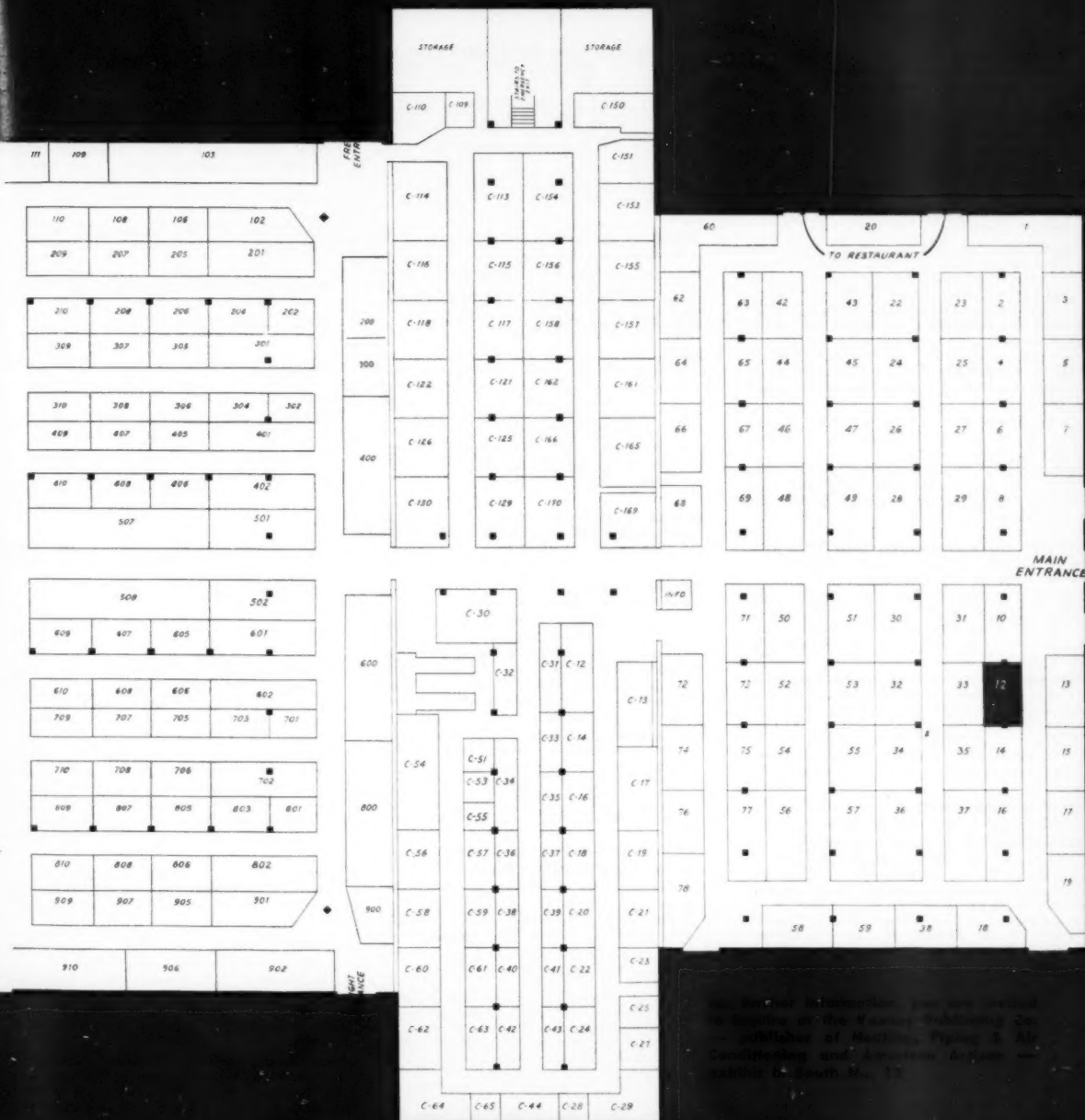
In attendance: George D. Lain.

Exhibiting: Use of steel pipe in radiant heating and snow melting installations.

CONDENSATION ENGINEERING CORP., 3511 W. Potomac Ave., Chicago 51, Ill.—Booth 226

In attendance: B. A. Johnson, Wayne Limbert, Walt Aschliman, Tom Jones, Bob Wasson.

Exhibiting: "Vitroliner" prefabricated chimneys and chimney lining pipe.



CONGRESS DRIVES DIV., TANN CORP., 3750 E. Outer Dr., Detroit 34, Mich.—Booth 647

In attendance: Herman Tann, Stuart Chosid, A. C. Dueweke, James Walsh, John Fitzpatrick, E. A. Caskey, William Smart.

Exhibiting: Pulleys, V-belts, couplings, pillow blocks, bearings. "Permawick" pillow block bearing will be a feature.

CONNOR ENGINEERING CORP., Danbury, Conn.—Booth 813

In attendance: Henry A. Baker, Peter A. Argenti, A. L. Register, Charles Coward, Carl B. Eastman.

Exhibiting: "Dorex" activated carbon air recovery systems, "Kno-draft" air diffusers. Late developments in air and gas purification and in conventional and high pressure air diffusion, including new dual duct automatic air mixing apparatus, will be featured.

CONTINENTAL AIR FILTERS, INC., 2520 Helm St. (P.O. Box 1647), Louisville, Ky.—Booth 926

In attendance: Wm. K. Gregory, Frank B. Johnston, Jr., Sidney S. Emison, Ray L. Craig, John A. Taylor, Jr., L. P. Bryant, Robert Hoover.

Exhibiting: Automatic self-cleaning air filters; cleanable, viscous impingement air filters; and featuring "Dycon" dry type air filters.

CONTRACTOR, THE, Grand Central Terminal Bldg., New York 17, N. Y.—Booth S-106

Exhibiting: Publication.

COPELAND REFRIGERATION CORP., Sidney, Ohio—Booth C-129

In attendance: F. V. Gleason, W. G. Von Meyer, Rudy Berg, J. E. Barker.

Exhibiting: Condensing units, compressors and

motor-compressors. Suction-cooled 3 hp, 5 hp and 7½ hp "Copelametic" motor-compressors for air cooled condensing units will be featured.

CORBMAN BROS., 25th & York Sts., Philadelphia 32, Pa.—Booth 234

In attendance: Joseph Corbman, Martin W. Corbman, A. L. Corbman, Martin B. Corbman, Philip P. Remer.

Exhibiting: Prefabricated ducts and fittings for rectangular and small pipe perimeter installations, smoke pipe and elbows.

CORY CORP., 221 N. LaSalle St., Chicago 1, Ill.—Booth C-158

In attendance: N. H. Schlegel, H. Roehm, J. T. Williamson, J. W. Wallace, R. TenEyck, H. Hartmann, E. W. Gutzell, W. D. Morgan, F. Power, E. J. Alexander.

Exhibiting: Electric fans, air circulators, air conditioners, humidifiers, dehumidifiers, heater fans, window fans, heaters.

CRANE CO., 836 S. Michigan Ave., Chicago 5, Ill.—Booths 134-233-235-239

In attendance: G. L. Erwin, Jr., C. E. Towner, E. P. Allen, E. B. Cole, J. J. Millner, F. J. Maurer, G. L. Ballantyne, M. W. McRae, C. J. Michael, W. J. Marston, H. W. Kuhlman, E. J. Mummert, J. W. Greene, C. O. Prickett.

Exhibiting: "Sunnyday" boiler, cast iron boiler, steel boiler line, gas fired "Basmor" boiler line, air conditioner line, horizontal furnace, hy-boy furnace, counter-flow furnace, baseboard radiant panels. The "Sunnyday" boiler and the "Crane-Line" air conditioner will be featured.

CRISE CONTROLS DIV., ACRO MFG. CO., 2040 E. Main St., Columbus, Ohio—Booth 332

In attendance: F. G. McCloskey, E. V. Bishoff, L. R. Preslan, J. D. Phillips, D. E. Kastle, T. A. Smith.

Exhibiting: Fan and limit controls, room thermostats, solenoid gas valve, zone control system, damper motors. New gas package will be featured.

CURTIS REFRIGERATING MACHINE DIV. OF CURTIS MFG. CO., 1905 Kienlen Ave., St. Louis 20, Mo.—Booth 51

In attendance: Harry C. Morrison, Harry J. Netter, Andrew M. Bono, K. T. Rockey, George Helde, Frank Hanley, Fred Havel, Charles Angell, J. E. Meade, V. P. Warren, W. Smallwood.

Exhibiting: New residential heating and cooling unit (2, 3 and 5 tons); new packaged water chillers (3 to 50 ton capacity); new 1955 room air conditioners (¾, 1 and 1½ tons); reverse cycle (heat pump) packaged air conditioners; and condensing units. Operating sectional compressor will be a feature.

CUTLER-HAMMER, INC., 315 N. 12th St., Milwaukee 1, Wis.—Booth 208

In attendance: P. S. Jones, F. A. Wright, J. M. Cook, K. M. Nelson, M. R. Brice, J. P. Simon, W. E. Addicks, R. G. Martinson, E. L. Singler, P. L. Erickson, H. E. Johnson, W. M. Reese, E. Gress, R. J. Keeler, R. A. Panoast, D. C. McIntosh, B. C. Chamberlain, B. M. Horter, Jr., R. W. Thomas, C. L. Wymelenberg.

Exhibiting: Motor control and motor switches for fans, blowers, pumps and air conditioning equipment, manual and magnetic starters and regulators, pressure switches, float switches, thermostats, electric heaters, small motor switches, etc. New "Unitrol" motor control centers with new power jack design; "Three Star" line of a-c magnetic across-the-line starters; new combination starters with self-contained motor circuit switches or circuit breaker; a-c magnetic part winding motor controller for two step, across-the-line starting of part winding type squirrel cage motors; and a-c secondary resistor drum controllers for wound rotor motors driving centrifugal compressors will be featured.

DAFFIN MFG. CO., Lancaster, Pa.—Booth C-51

In attendance: P. A. Herr, C. A. Isenberger, G. E. Sprackling.

Exhibiting: Plenum humidifier; "Hum-O-Zone" industrial humidifier; humidifier for homes, offices, greenhouses, etc.; refrigeration humidifier for food storage areas; new "Daffinair" portable residential and office humidifier which filters and water-washes the air, discharging sufficient moisture "to humidify a six room house."

DAVIDSON FAN CO., 213 California St., Newton 58, Mass.—Booth 422

In attendance: E. F. Patterson, R. E. Mabey, J. F. Snow.

Exhibiting: Centrifugal roof exhaust fans.

DAYTON RUBBER CO., THE, Dayton 1, Ohio—Booths 443-445

DeBOTHEZAT FANS DIV., AMERICAN MACHINE & METALS, INC., East Moline, Ill.—Booth 210

In attendance: F. C. Weicker, C. J. Gaspar, R. W. Bouslough, M. G. Beline.

Exhibiting: Induced draft "Bifurcators", vane axial fan, stainless steel "Bifurcator", roof ventilator. Induced draft "Bifurcator" with electrical speed control "to provide pinpoint burner efficiency" will be featured.

DELAVAN MFG. CO., 811 Fourth St., West Des Moines, Iowa—Booth 4

In attendance: David T. Morganthaler, Nelson B. Delavan, B. S. Goreham, Eugene O. Olson, Wm. B. Spargur, Wm. Thurston, Lee N. Beardsley, A. Kenneth Johnson, H. L. McNally, Robert E. Keene.

Exhibiting: Oil burner nozzles and accessories; spray nozzles for cooling towers, evaporative condensers, humidifying and industrial applications; "Hally" nozzle filters; flame inspection mirrors, oil burner serviceman's kits; sludge solvent; nozzle boxes; jobber and dealer nozzle racks; and nozzle tools. The display racks, nozzle changer and the nozzle boxes will be featured.

DELCO PRODUCTS DIV., GENERAL MOTORS CORP., Dayton 1, Ohio—Booths S-31, S-33

DELTA HEATING CORP., 1 Cole St., Trenton 8, N. J.—Booth 150

In attendance: Edward C. Black, W. F. Briggs, H. E. Culley, Frank Steward, E. S. Cushing, Charles A. Dyson, Dick Halberg, Walter W. Coe, Saul Feinberg, A. L. Nathan, Roy C. Hauck, Nicholas Hayes, Donald P. Moore, Jerry Pollard, W. J. Schonfeld.

Exhibiting: Unit heater, floor furnace, suspended furnace, hi-boy furnace, "Big Boy" hi-boy furnace, counterflow furnace, lo-boy furnace, wall furnace, "Floor-O-Lator" oil burner, gravity furnace, gun type gas burner. New "F181" oil floor furnace and new "UH" oil-fired unit heater will be featured.

DETROIT CONTROLS CORP., 5900 Trumbull Ave., Detroit 8, Mich.—Booth 35

In attendance: C. H. Hodges, Jr., E. J. Doucet, F. G. Coggin, K. B. Thorndike, R. S. Paltz, W. H. Hohmeyer, F. Y. Carter, J. Strauss, H. L. Walker, G. Yorgen, F. D. Cooper, T. C. McKee, Jr., C. U. Cole, A. Fuller, N. L. Sell, E. E. Crowley, S. A. Anderson, J. W. Carlson, B. L. Bambard.

Exhibiting: Automatic controls for air conditioning systems and gas and oil heating systems. Heating-cooling thermostat for year around air conditioning and automatic change-over valve for remote type heating-cooling units will be featured.

DEVICES, INC., 214 E. 53rd St., New York 22, N. Y.—Booth 302

In attendance: B. LeB. Musgrave, L. R. Cutler, Harold N. Davis, V. L. Yepsen, Alex O'Hare, Alex Kidd.

Exhibiting: "Miracle" surface anchors and "Protek-insul," a new pipe and duct covering finish, which will be featured.

DIEHL MFG. CO., Finnerne Plant, Somerville, N. J.—Booth 739

DIELECTRIC PRODUCTS CO., INC., 125 Virginia Ave., Jersey City 5, N. J.—Booth S-37

In attendance: Phil Krueger, Henry T. Carey, Ted Roman, L. Di Nicola.

Exhibiting: Oil burner electrode assemblies, insulators, bus bar, "Rajah" terminals.

DODGE CORP., N. W., 119 W. 40th St., New York 18, N. Y.—Booth C-31

Exhibiting: Publication.

DOERR ELECTRIC CORP., Cedarburg, Wis.—Booth C-121

DOLE VALVE CO., THE, 1933 W. Carroll Ave., Chicago 12, Ill.—Booths 421-423

In attendance: J. F. Lund, S. G. Phillips, H. H. Aronson, T. G. Colter, E. K. Williams, Mitchell Love.

Exhibiting: Air and vacuum valves, automatic hot water valves, water mixers, flow controls, and automatic registers, and featuring automatic hot water air valves and shower controls.

DOLLINGER CORP., Rochester 3, N. Y.—Booth 304

DOMESTIC ENGINEERING, 1801 Prairie Ave., Chicago 16, Ill.—Booth 343

Exhibiting: Publication.

DONALDSON DIV.—see MARVIN D. SHAFFER CO.

DONGAN ELECTRIC MFG. CO., 2987 Franklin St., Detroit 7, Mich.—Booth S-35

In attendance: C. E. Hicks, J. B. Evans.

Exhibiting: Oil and gas ignition transformers for industrial and domestic use. Replacement oil burner ignition transformers will be featured.

DOYLE VACUUM CLEANER CO., 225 Stevens St., S.W., Grand Rapids 2, Mich.—Booth C-22

In attendance: Walter B. Fitzgerald, Ralph C. Newton.

Exhibiting: Vacuum cleaners and attachments.

DRAVO CORP., 5th & Liberty Aves., Pittsburgh 22, Pa.—Booth 639

In attendance: Home office management and engineering personnel; eastern, midwestern and southern area sales managers.

Exhibiting: Center of attraction will be the floating stainless steel combustion chamber from a 1 million Btu "Counterflo" forced air space heater. Also exhibited will be complete "Counterflo" and "Paraflo" light oil fired heaters, and a suspended gas fired unit heater.

DRAYER-HANSON, INC., Box 2215 Terminal Annex, Los Angeles 54, Calif.—Booth 214

DUNHAM CO., C. A., 400 W. Madison, Chicago 6, Ill.—Booths C-150, C-151

In attendance: F. E. Schmidt, W. S. Browning, N. F. Sorgenfrei, J. W. O'Neil, J. S. Gregory, J. W. Jungels, H. S. Marshall, A. J. Hesmer, E. G. Powell, E. G. Keller, R. E. Sweney.

Exhibiting: Baseboard radiation, convectors, finned tube radiation, steam or hot water horizontal and vertical unit heaters, gas fired unit heaters, steam and hot water automatic temperature controls, vacuum pumps, condensation pumps, heating-cooling units, steam specialties, hot water specialties, hot water circulators. Forced flow convectors, baseboard for commercial applications, new hot water line and new electronic temperature control panel will be featured.

duPONT de NEMOURS & CO., E. I.—see KINETIC CHEMICALS DIV.

DURANT INSULATED PIPE CO. and DURANT INTERNATIONAL CORP., Palo Alto, Calif., and Williamstown, N. J.—Booth S-14

In attendance: A. H. Isenberg, William H. Buck, William R. Funk, Anthony Oswald.

Exhibiting: Presealed insulated pipe.

DURO-DYNE CORP., 800 Third Ave., New Hyde Park, N. Y.—Booth C-33

In attendance: Martin M. Gracer, Milton Hinden, Sam Alter, Arthur Harshall.

Exhibiting: "Duro-Blade" kit, "Duro-Vane" rail, "Duro-Metal-Fab", "Greyhound" portable spot welder, and recently acquired "Parker-Kalon" damper regulator sets and

accessories, metal punches, file handles, solder iron handles.

DWYER MFG. CO., F. W., 317 S. Western, Chicago 12, Ill.—Booth 715

In attendance: J. G. Dwyer, P. W. Dwyer.

Exhibiting: Inclined tube gages, air filter gages, manometers, pitot tubes, pressure actuated switches, combustion test sets.

EAGAN CO., INC., WALTER H., 2336 Fairmount Ave., Philadelphia 30, Pa.—Booth 348

ECKHART MFG. CO., INC., 931 Lehigh Ave., Union, N. J.—Booth 330

In attendance: Arnold Eckhart, Sr., Walter E. Eckhart, George W. Diem, William D. Boswell.

Exhibiting: "Silent Korth" oil burners with capacities from 0.75 to 20 gph. New model SR-SH oil burner (0.75 to 1.75 gph capacity) equipped with improved combustion head with flame stability will be featured.

EDDINGTON METAL SPECIALTY CO., Eddington, Pa.—Booth 209

EJAY BASEBOARD MFG. CO., 124 Boyd St., Winsted, Conn.—Booth C-53

In attendance: Edward J. Fitzgerald, Hope Fitzgerald.

Exhibiting: Baseboard heating Model No. 566; new "Screamline" baseboard to be shown for the first time.

ELECTRIGLAS CORP., Newbridge & Windsor Rd., Bergenfield, N. J.—Booth 843

Exhibiting: Radiant heating panels.

ELECTRO-AIR CLEANER CO., 1285 Reedsdale St., Pittsburgh 33, Pa.—Booth S-9

In attendance: P. W. Aitkenhead, R. C. Aitkenhead, J. E. McGivern, E. L. Baysek.

Exhibiting: Electronic air cleaners, featuring single circuit power supply and selenium rectification of current.

ELECTRONICS CORP. OF AMERICA—see COMBUSTION CONTROL DIV.

ELECTRO-THERM, INC., 931 Selim Rd., Silver Spring, Md.—Booth 745

In attendance: James G. Lampe, Alan Metcalfe.

Exhibiting: Electric heating elements, immersion water and oil preheaters.

ELGEN MFG. CORP., 41-34 39th St., L. I. City 4, N. Y.—Booth S-92

In attendance: Albert Josephson, Louis Josephson, John J. Wyle, Bruno Speiser, Morris Goldsmith, Maurice Goodman, Lee Sobel.

Exhibiting: "Damperset," "Silent Duct," and "All-Tite" vane runner.

EMERSON ELECTRIC MFG. CO., THE, 8100 Florissant Ave., St. Louis 21, Mo.—Booths 718-722

EMERSON RADIO & PHONOGRAPH CORP.—see QUIET HEET MFG. CORP.

EMPIRE CHEMICAL PRODUCTS CO., 10 Longworth St., Newark 2, N. J.—Booth S-66

In attendance: F. M. Severson, M. A. Travisano.

Exhibiting: Furnace cleaners.

ENGEL SHEET METAL EQUIPMENT, INC., 3001 N. Union Blvd., St. Louis 15, Mo.—Booth 16

In attendance: Charles F. Engel, Joseph R. Yoch, O. Wolters, Wm. Stoner.

Exhibiting: Tools for laying out, cutting, and notching metal—"Ductmaster," new "Shop-master," new "Benchmaster," multiple notching units (hand operated or power operated); new "Edge Master" flanger for flanging of metal.

EUREKA WILLIAMS CO.—see WILLIAMS DIV.

EVANS CORP., THE GEORGE, 37th St., Moline, Ill.—Booth C-153

In attendance: Reid Evans, Frank Myers, Dick Evans.

Exhibiting: "Lifelong" air filter, industrial and commercial filter, industrial filter and frame, and grease filter. Exclusive "air scoop" design "with 76,060 air scoops in a 20 in. x 20 in. x 2 in. filter, whereby air is forced to travel 3.5 times the filter depth from inlet to outlet side," will be featured.

EXCELSIOR STEEL FURNACE CO., THE, 118 S. Clinton St., Chicago 6, Ill.—Booth S-65

In attendance: J. S. McDonald, E. C. Brex, I. E. Brex, D. E. Brex, E. A. Brex, G. A. Clarke, S. E. Esposito, J. B. Fehlig, R. L. Wilson.

Exhibiting: Galvanized furnace pipe and fittings; stainless steel chimney liners; blued and walnut stovepipe and elbows; AGA approved gas diverters; sheet metal specialties. A new line of galvanized pipe and fittings for small pipe perimeter installation will be featured.

FAIRBANKS CO., THE, 393 Lafayette St., New York 3, N. Y.—Booth 434

In attendance: James J. Langan, William R. Bieretz, Herbert J. Knapp, William J. Kaiser, Herbert S. Jones, Eugene T. Zittel, Robert A. Fournier.

Exhibiting: Bronze valves, iron body valves. "Dart" malleable iron unions, "PIC" steel unions. The valve display will feature two new union bonnet rising stem gate valves.

FARR CO., P.O. Box 45187, Airport Station, Los Angeles 45, Calif.—Booth 10

In attendance: R. S. Farr, W. H. Welty, F. X. Shea.

Exhibiting: "Far-Air" filter, self-washing filter, grease eliminator, and "Rotonamic," which will be featured.

FASCO INDUSTRIES, INC., N. Union at Augusta St., Rochester 2, N. Y.—Booth 306

In attendance: H. M. Sylvester, D. R. Schroedel, C. A. Button, N. S. Dean, K. J. Orr, J. M. Nolan, P. R. Reid.

Exhibiting: Shaded pole motors ranging from 1/500 to 1/8 hp., and centrifugal blowers.

FEDDERS-QUIGAN CORP., 85 Tonawanda St., Buffalo 7, N. Y.—Booth 300

FEDERAL BOILER CO., INC., 2610 E. Tremont Ave., New York 61, N. Y.—Booths 218-222

In attendance: Raymond H. Bohr, Raymond Shuster, James H. Legg, Roy M. Rathe, William Leach, George McGrath, Charles Wm. Cavanagh, Charles Lowrey, Oscar Mann.

Exhibiting: Residential heating boilers, oil fired and gas fired; commercial heating boilers; competitive heating boilers, oil fired and gas fired; baseboard. Live exhibit will show an AGA approved heating boiler producing domestic hot water from a tankless coil fired by gas.

FIELD CONTROL DIV. of H. D. CONKEY & CO., Mendota, Ill.—Booth C-24

In attendance: C. W. Potter, Henry Remsberg, H. J. Potter, E. A. Field, manufacturers' representatives from the United States and Canada.

Exhibiting: Barometric draft controls, gas controls, incinerator controls, stove and range controls, domestic gas controls. Type "RCG" domestic gas controls and type "SNA" incinerator controls will be featured.

FITZGIBBONS BOILER CO., INC., 101 Park Ave., New York 17, N. Y.—Booths 525-531

In attendance: P. K. Addams, J. R. Collette, G. Nelliann, G. E. Olsen, W. O. Siess,

F. W. Harmer, R. E. Ross, F. G. Stellwagen, H. C. Roehm, A. R. Rossbach, R. J. Wickel, E. W. Skoglin, F. M. Butler, W. N. Hall, W. C. Wetherstine, E. N. Black, III, G. T. Kohler, M. F. May, R. W. James, R. E. Toms, R. S. Brenton, F. A. Dockeray, A. E. Powers, W. T. Feely, A. Stellingworth, J. J. Weeks, A. P. Goodyer, W. A. Johnson, W. Skowronek, R. Peckham, A. W. Nugent, H. O. Beadle.

Exhibiting: Commercial boiler-burner package, gas boiler unit with "Tanksaver," new type "D" boiler, boiler-burner unit, cutaway "R-Z-U Junior" boiler. The commercial boiler-burner package and the "770" gas boiler unit will be shown for the first time.

FLEXIBLE TUBING CORP., Guilford, Conn.—Booth C-156

In attendance: F. K. Daggett, W. L. Guiles, R. H. Pulton, H. W. James.

Exhibiting: "Thermaxflex," a new type of branch ducting for high and low pressure air conditioning systems.

FLEXONICS CORP., 1315 S. 3rd Ave., Maywood, Ill.—Booth S-127

In attendance: M. D. Thackaberry, D. E. Wolf, L. R. Taylor, G. W. Derum, J. H. Zabel, W. J. Ribbentrop, A. C. Winter, M. J. Mitchell, R. M. Quick, T. K. Wells, E. L. Hiter, H. V. Tastrom.

Exhibiting: "Vibra Sorbers," expansion joints, expansion compensator for low pressure steam and hot water, flexible metal hose. Special expansion compensators for domestic heating systems will be featured.

FOOD MACHINERY AND CHEMICAL CORP.—see PEERLESS PUMP DIV.

FOREST CITY FOUNDRIES CO., NIAGARA FURNACE DIV.—see NIAGARA FURNACE DIV.

FOSTORIA PRESSED STEEL CORP., Fostoria, Ohio—Booth C-117

In attendance: R. H. Carter, E. W. Kuhn, R. W. Jeffery, J. J. Sweeney.

Exhibiting: "Dynapump" magnetic fractional horsepower circulator or booster pump, featuring the performance and improved "Silent Night" flange designed to insure a quiet installation.

FREEMAN DIV., ILLINOIS IRON & BOLT CO., Carpentersville, Ill.—Booths S-112 & S-114

In attendance: J. M. McClintock, J. M. Mulaney, Fred W. Cochrane, Frank Schroeder.

Exhibiting: "Burdett" gas conversion burner, oil and gas fired furnaces, stokers, incinerators, oil burners.

FRICK CO., West Main St., Waynesboro, Pa.—Booth 317

In attendance: P. H. Buch, C. C. Smith, R. H. Moore, M. W. Garland, W. H. Aubrey, W. O. Kline, T. Mitchell, M. B. Watts, J. Alvarez, R. M. Shuford, R. A. Ebner, P. A. Willis, J. T. Murphy, Cyril Leech, W. J. Dugas, H. F. Burpee, David Eddy, J. A. Etter, R. W. McFerran.

Exhibiting: A four-cylinder "Eclipse" compressor cut-away and operating in slow motion; a working model of a new square-finned cooling coil, kept frosted by a refrigerating unit; unit air conditioner, a "Shell-ice" maker; valves, fittings and machine parts. The finned coil, ice maker and type ASF safety valve will be shown for the first time.

FRIGIDAIRE DIV., GENERAL MOTORS CORP., Dayton 1, Ohio—Booths 52-54

Exhibiting: Self-contained "Master-matic" air conditioner (cutaway model); year 'round air conditioner (cooling and heating combined); 2, 3, and 5 ton capacity "Multi-matic" air conditioners (used in conjunction with any forced air furnace); 1955 model room air conditioners; representative model water cooler.

FUELOIL & OIL HEAT, 2 W. 45th St., New York 19, N.Y.—Booth 108
Exhibiting: Publication

FULTON SYLPHON DIV., ROBERTSHAW-FULTON CONTROLS CO., P.O. Box 400, Knoxville 1, Tenn.—Booths 334-336

In attendance: L. S. Dysart, E. D. Rogers, M. G. Calhoun, D. D. Gordon, G. E. McKinney.

Exhibiting: Temperature controls, pressure controls, automatic radiator valves, steam-water mixers, hot-cold water mixers, room thermostats, packless valves, bellows and bellows assemblies, float valves, bellows motor valves. "Fultrol" thermostatic pilot controller for hydraulic or pneumatic control systems, float valve for liquid level control, mixer for mixing hot and cold water for tempered water supply, mixer for mixing steam and water for hot water supply, bellows motor valve for pneumatic or hydraulic control systems, and room thermostat of line voltage type for electric heating systems, stokers and oil burners are new products.

GALLAHER CO., THE, 4108 Dodge St., Omaha 3, Neb.—Booth 248

In attendance: J. J. Solzman, David Solzman, Alfred Petersen, Richard Holland.

Exhibiting: Centrifugal power roof exhauster, both direct drive and belt driven types.

GAS HEAT, 2 W. 45th St., New York 19, N.Y.—Booth 108

Exhibiting: Publication

GENERAL AUTOMATIC PRODUCTS CORP., 2300 Sinclair Lane, Baltimore 13, Md.—Booth 14

In attendance: Robert E. Lee, Claude W. Schaefer, Howard J. Hughes, Harold F. Brownings, Walter R. Way, Robert M. Hodgdon.

Exhibiting: Hot water and warm air baseboard, gas fired boilers, winter air conditioners, oil fired boiler.

GENERAL BLOWER CO., 8606 Ferris Ave., Morton Grove, Ill.—Booths 425-427

In attendance: James E. Clark, R. P. Scott, H. Edward Gross, I. A. Fern, J. J. Ferretti, I. Kahn, Robert Bacon.

Exhibiting: Backward blade and forward curve centrifugal fans, multi-vent sets, industrial exhausters, industrial propeller fans, centrifugal roof ventilator, turbo pressure blowers.

GENERAL CHEMICAL DIV., ALLIED CHEMICAL & DYE CORP., 40 Rector St., New York 6, N.Y.—Booths S-95 and S-97

In attendance: H. L. Robbins, L. D. Callans, Dr. F. E. Medon, Henry Burki, W. B. Sherry, J. J. Tomlinson, and sales representatives from nationwide company offices.

Exhibiting: "Genetron Super-dry" refrigerants, including 11—orange label—trichloromono-fluoromethane; 12—white label—dichlorodifluoromethane; and 141—green label—monochlorodifluoromethane.

GENERAL CONTROLS CO., 801 Allen Ave., Glendale, Calif.—Booth 56

In attendance: J. F. Ray, F. Weldon, J. Wolff, S. Andrews, L. Liepin.

Exhibiting: Automatic controls for heating and appliances. Heating thermostat, air conditioning thermostat, limit controls and air conditioning control panel will be featured.

GENERAL ELECTRIC CO., AIR CONDITIONING DIV., COMMERCIAL AND INDUSTRIAL AIR CONDITIONING DEPT., 5 Lawrence St., Bloomfield, N.J.—Booth C-113

In attendance: F. J. Van Poppelen, J. S. Beldon, G. K. Iwashita, W. F. R. Karsten, J. J. Heffernan, M. N. Thrall, C. W. Legard, C. J. Rigby, R. D. Roley, B. Natkin.

Exhibiting: Packaged air conditioners and drinking water coolers for business and industry.

GENERAL ELECTRIC CO., AIR CONDITIONING DIV., WEATHERTRON DEPT., 5 Lawrence St., Bloomfield, N.J.—Booth 347

In attendance: F. J. Van Poppelen, J. S. Beldon, H. M. Brundage, H. L. Williamson, W. G. Cox, H. N. McMenimen, P. B. Hop-pin.

Exhibiting: Completely new "Weathertron" packaged heat pump.

GENERAL ELECTRIC CO., (APPARATUS DIV.), 1 River Rd., Schenectady 5, N. Y.—Booths 933-935

In attendance: P. Gomez, W. T. Goldsmith, B. R. Elam, R. D. Tyler, K. Recktenwald, H. E. Smith, E. B. O'Hara, E. F. Rhodes, W. F. Brunner, J. Amsterdam, C. J. Ossensfort.

Exhibiting: "Tri-clad" induction motors, fractional hp fan and blower motors, leak detector, heating controls, general purpose Fhp motors. New "Tri-clad 55" motor and 39 frame Fhp motor will be featured.

GENERAL FILTERS, INC., 43800 Grand River Ave., Novi, Mich.—Booth 6

In attendance: Robert G. Gregory, Roland A. Redner, Mrs. Grace Redner, and others.

Exhibiting: Complete line of fuel oil filters for both light and heavy fuel oils, water trap for bottom opening fuel oil tanks; "Unifilter" combination filter, valve and fittings for space heaters; "Clean Right" soot remover.

GENERAL FITTINGS CO., 123 Georgia Ave., Providence 5, R.I.—Booth S-36

GENERAL GAS LIGHT CO., 202 N. Park St., Kalamazoo, Mich.—Booth 313

In attendance: Alfred H. Humphrey, Robert P. Humphrey, William H. Jackson, Clifford G. Weirs, W. N. Blinks, W. F. Kite, Norris Blanchard, D. R. Bayers, Alfred M. Slattery, Julius A. Meier, Harold M. Jay, R. O. Berry, R. M. Kinney, Sidney L. Katz, Henry Zehner, Glenn A. Frey, Thos. F. McNally, Russell F. Streff, W. A. Hart.

Exhibiting: Propeller fan and blower unit heaters, duct furnaces, furnaces, circulating heaters, radiant heaters, panel heaters. The panel heaters, duct furnaces and the furnaces will be featured.

GENERAL HEATING PRODUCTS CO., 7426 State Rd., Philadelphia 36, Pa.—Booth S-57

In attendance: Paul H. Bunten, Charles Rihl, Joseph Myers.

Exhibiting: "Thriftmaster" tubeless boilers, gas and oil fired; baseboard radiation; convactor radiation; "Aire-trim" baseboard radiation (forced warm air); winter air conditioners (forced warm air) high and low boys; "V-T" tube boilers, oil fired.

GENERAL MOTORS CORP.—see FRIGIDAIRE DIV.

GENERAL PLATE DIV.—see METALS & CONTROLS CORP.

GENERAL REGISTER CORP., 14 Factory St., Cedar Grove, N.J.—Booth C-40

In attendance: B. Philip Harding, Russell D. Anderson.

Exhibiting: New and complete line of air conditioning registers and grilles.

GERWIN INDUSTRIES, INC., 214 Spring St., Michigan City, Ind.—Booth S-101

In attendance: L. C. Cotts, Frank Davenport, Charles Murman, Edward Black, O. W. Dobson, C. J. Baldwin, A. L. Yeager.

Exhibiting: "Thermo-Base" warm air baseboard heat distributors.

GIBSON INDUSTRIES, 965 W. Western Ave., Muskegon, Mich.—Booth S-113

In attendance: Harry E. Gibson, T. S. House,

H. E. Sante, S. P. Ruster, Harold McCormick.

Exhibiting: "Mipatan" electric hammer for corner locks and "Mipatan" air hammer for shops equipped with air.

GOODFELLOW CO., INC., E. D., 496 E. Bodley Ave., Memphis 2, Tenn.—Booth 614

In attendance: E. D. Goodfellow, Chas. E. Goodfellow, W. T. Dawkins, C. L. Goodfellow, T. Fuller.

Exhibiting: Induced draft cooling towers and centrifugal pumps.

GOODYEAR TIRE & RUBBER CO., THE, 1144 E. Market St., Akron 16, Ohio—Booth 939

GOULDS PUMPS, INC., 300 Fall St., Seneca Falls, N.Y.—Booth C-20

In attendance: C. L. Forshee, P. J. Olmstead, S. S. Gould.

Exhibiting: Centrifugal pumps for air conditioning and general service applications.

GOVERNOR CORP., 513 N. Blackwelder, Oklahoma City 4, Okla.—Booth 601

In attendance: W. A. Quinn, J. B. Quinn, A. M. Keyser, H. R. Krueger, C. K. Fitzgerald, W. H. Moler, W. H. Hollingsworth, Harold Feldstein, R. S. Oakleaf, R. O. Emery, R. E. Keller, W. S. Farnum.

Exhibiting: Self-contained air conditioner with evaporative condenser, packaged air conditioner, air handling unit, and blast coil.

GRAHAM MFG. CORP., 1541 E. Eight Mile Rd., Ferndale 20, Mich.—Booth S-98

In attendance: George A. Crandall, Richard F. Saro, P. H. Vollman.

Exhibiting: "Insul-Pin" system, Model 6000-D "Insul-Pin" welder will be introduced.

GUSTIN-BACON MFG. CO., 210 W. 10th, Kansas City 5, Mo.—Booth 740

In attendance: M. F. Hauserman, Jr., F. W. Muller, G. P. Oldham, K. H. Crone, Barth Glichrist, L. E. Feitt, G. P. Corlis, F. J. Kane.

Exhibiting: "Ultralite" duct insulation and liner. New "G-B Snap On" pipe insulation molded of fine glass fibers will be featured.

HALSTEAD & MITCHELL, Bessemer Bldg., Pittsburgh 22, Pa.—Booth C-36

In attendance: Byron Halstead, William Rapp, William Moffitt, Horace I. Schmidt, Thomas Scott, Theodore Smith.

Exhibiting: Cooling towers and condensers, featuring "Take-Apart" cooling tower and centrifugal fan cooling tower.

HARRIS & CO., ARTHUR, 210-218 N. Aberdeen St., Chicago 7, Ill.—Booth 620

HART & COOLEY MFG. CO., 500 E. 8th St., Holland, Mich.—Booth 610

In attendance: G. D. Heeringa, E. J. Rowder, J. H. Van Dyke, G. J. Braun, W. K. O'Brien, R. C. Smeenge, R. W. Gordon, G. W. Copeland, P. W. Winchester.

Exhibiting: Registers, grilles and diffusers for warm air heating and air conditioning systems. Baseboard diffusers for perimeter heating and cooling will be featured.

HASTINGS AIR CONTROL, INC., 3215 Leavenworth St., Omaha, Nebr.—Booth S-45

In attendance: Milton S. Frankle, Felix Roth, Werner Lindeman, Bill Seymour, Phineas Wintroub, Richard L. Wintroub.

Exhibiting: Air conditioning equipment, power conversion gas burners, gas unit heaters, "Hoist-It" hoisting equipment. "Double-Kool" units "which produce 2 tons of refrigeration per compressor horsepower," utilizing water up to 70 deg will be featured. Air is precooled in four row, all copper

water coil and then further cooled and dehumidified in all copper DX coil, which feature permits use of up to 100 percent outdoor air for ventilation.

HEATING, AIR CONDITIONING, SHEET METAL CONTRACTOR, 92 Martling Ave., Tarrytown, N.Y.—Booth C-18
Exhibiting: Publication.

HEATING, PIPING & AIR CONDITIONING, 6 N. Michigan Ave., Chicago 2, Ill.—Booth 12

In attendance: Charles E. Price, Wallace J. Osborn, Robert A. Jack, C. M. Burnam, Jr., Robert W. Roose, George C. Cutler, Thomas V. Johnson, Robert J. Osborn, James E. Sacra, David V. Mahan.

Exhibiting: Heating, Piping & Air Conditioning magazine; market information.

HEATING AND VENTILATING, 148 Lafayette St., New York 13, N. Y.—Booth C-12
Exhibiting: Publication.

HEAT-TIMER CORP., 657 Broadway, New York 12, N.Y.—Booth C-34

In attendance: Edward J. Zeitlin, Harry Zeitlin, Albert Fowler, Lee Leighton.

Exhibiting: Electronic heating control, "Vari-valve," "Thermovalve," main line quick vent valve, new heat recorder-totalizer, new heat totalizer, motorized valves, new smoke eye control, new oil burner fire alarm.

HEIL CO., THE, 3000 W. Montana St., Milwaukee 1, Wis.—Booths 122-126-132

In attendance: John Barclay, Geo. Hochstein, D. E. Fricker, Wm. A. Matheson, Robert Rose, John Huber, Harold Wilkinson, Alex Eunsion, Ken Johnson, Richard Berry, Roy King, Fred Bittner, Karl Mould, Fred Brubaker, Charles Kahl, Geo. Katzenberger.

Exhibiting: Conversion oil burner, (with "Per-fex Ray"); conversion oil burner (with low pressure pump); new conversion gas burner; new highboy furnace (plus horizontal water cooled air conditioner); oil fired furnace (plus water cooled air conditioner); oil fired lowboy builder's model furnace; oil fired horizontal furnace; gas fired horizontal furnace; gas boiler; oil boiler.

HENNEY MOTOR CO.—see WILLIAMS DIV.

HENRY FURNACE CO., Medina, Ohio—Booths 36 & 57

In attendance: J. Crombie, E. J. Marre, J. S. Garber.

Exhibiting: "Moncrief" combination heating and cooling year 'round air conditioning units (gas and/or oil fired heating); summer air conditioning units (self-contained and remote types; air and water cooled); gas and/or oil fired basement, utility, horizontal and counterflow winter, air conditioning units; gas and/or oil fired gravity furnaces; gas fired unit heaters; gas conversion burners; oil conversion burners; blower-filter units; gas incinerators; and "Surefit" warm air duct fittings and registers. New counterflow combination year 'round air conditioning units in two sizes, new 5 ton air conditioner, and gas fired unit heaters will be featured.

HERBSTER PRODUCTS CO., 677 Addison Rd., Cleveland 3, Ohio—Booth S-22

In attendance: William L. Schmler, Leon Kenney, Donald Aingworth, Ralph E. Stinson, Ferd D. Miller.

Exhibiting: Furnaces and furnace-dryer combinations with cast iron "Torcon" heat exchanger.

HERCO OIL BURNER CORP., 131 Locust St., Lancaster, Pa.—Booth S-108

In attendance: Harry B. Rohrer, Ray W. Mum-maw.

Exhibiting: High and low pressure oil burners, packaged warm air furnaces, packaged boiler-burner units. New model HLP-1 low pressure oil burner will be featured.

HERRING-HALL-MARVIN SAFE CO.—see QUICKDRAFT CO.

HI-FLOW PRODUCTS, INC., 4524 Harford Rd., Baltimore 14, Md.—Booth 727

In attendance: Clarence Meyer, Philip Seligson, Ed Berry, C. N. Rink, George Schaefer, Gilbert Sandler.

Exhibiting: Hot water heating specialties including flow-tees, venturi tees, radiant manifolds, twin-tube baseboard manifolds, corner compression connectors for cast iron baseboard radiation, purging and balancing assemblies: New types of radiant heat manifolds, and "Equa-Valve" for the balancing, venting and purging of a hot water baseboard loop system will be featured.

HOFFMAN SPECIALTY MFG. CORP., 1700 W. 10th St., Indianapolis 7, Ind.—Booth 802

In attendance: Neil D. Skinner, A. O. Roche, Jr., W. W. Dillon, R. G. James, J. T. Haffner, Merrill Blankin.

Exhibiting: Commercial wall radiation, baseboard radiation, circulators, flow control valves, expansion tanks, distribution flow tees, vent valves, condensate and vacuum pumps, supply valves, and thermostatic traps.

HOMEASE PRODUCTS DIV., 52 Iowa Ave., Paterson 3, N.J.—Booth 407

HOWARD INDUSTRIES, INC., 1760 State St., Racine, Wisc.—Booth S-75

In attendance: E. J. Hansen, J. R. Melvin, W. A. Ernst, W. E. Macbeth, E. C. Spaay, R. Bulis, Wm. Fay, Ragnar Johnson.

Exhibiting: Fractional horsepower electric motors, featuring a permanent split capacitor motor for the air conditioner industry.

HUCK MFG. CO., 2480 Bellevue, Detroit 7, Mich.—Booth S-124

HYDRALINE PRODUCTS DIV., BORG-WARNER CORP., 18538 Mack Ave., Detroit 36, Mich.—Booth 436

In attendance: C. S. Davis, Jr., J. W. Pulkinghorn, V. W. Mayer.

Exhibiting: Year-'round remote room conditioner for forced water, combination hot water boiler and liquid chiller package, slip-on type pipe insulation.

HYDRECO DIV., THE NEW YORK AIR BRAKE CO., 1100 E. 22nd St., Cleveland 17, Ohio—Booths C-27, C-29

HYDROTHERM, INC., Clinton Ave., Northvale, N. J.—Booth 836

In attendance: J. F. Baier, W. F. Hosmer, H. D. Staman.

Exhibiting: Gas fired, cast iron, hot water boilers, featuring units from 45,000 to 170,000 Btu capacity, factory assembled and wired.

HY-LO BURNER CO., INC., Bristol Pike, Eddington, Pa.—Booth C-28

In attendance: Charles B. Wells, K. L. Leatherman, Edward Pienta.

Exhibiting: High and low pressure oil burners for domestic applications and conversions; burner-boilers and furnace-burners. Firing set-up demonstrating the low pressure burner will be featured.

ILG ELECTRIC VENTILATING CO., 2850 N. Pulaski Rd., Chicago 41, Ill.—Booth 633

In attendance: J. M. Frank, J. J. Friedler, Jr., C. W. Dexter, G. C. Jelliffe, J. O. Lennon, C. W. Stewart, W. G. Thomas, C. E. Taylor, R. J. Kemly, C. E. Brock, W. T. Trowbridge, C. F. Phillips, Jr., H. T. Darnall, F. A. Leser, R. F. Long.

Exhibiting: Fans—propeller, centrifugal, window, circulating, kitchen, darkroom, man

cooler, roof and marine; unit heaters—steam, hot water, gas and all-electric; power roof ventilators. New line of steam unit heaters in horizontal, vertical and textile types will be featured.

ILLINOIS ENGINEERING CO., 2035 S. Racine Ave., Chicago 8, Ill.—Booths C-109 and C-110

In attendance: C. A. Pickett, J. L. Ehretsmann, R. W. Leutwiler, L. Moore.

Exhibiting: Steam heating system equipment, steam heating system controls, steam power equipment. A glass model steam trap and standard float and thermostatic trap operating under steam will be featured.

ILLINOIS IRON & BOLT CO.—see FREEMAN DIV.

ILLINOIS TESTING LABORATORIES, INC., 420 N. LaSalle St., Chicago 10, Ill.—Booth 805

In attendance: W. J. Bailey, C. O. Wilson, G. F. Bertrand, D. Stuckey.

Exhibiting: Temperature measuring and controlling instruments, air measuring instruments, dew point measuring instruments.

IMPERIAL BRASS MFG. CO., THE, 1200 W. Harrison St., Chicago 7, Ill.—Booth 202

In attendance: T. A. Byrnes, R. H. Burk, E. Riasl, T. Durr.

Exhibiting: 45 deg and 37 deg flared, compression "Hi-Duty," "Ermoto," "Poly-flo" and brass pipe fittings, tube fittings for LP gas, refrigeration tube fittings, valves, driers, liquid indicators and service tools, fluid control valves, "Hi-Duty" pressure hose and re-usable couplings, shut-off valves and tubing tools. Fluid control valves which include needle, toggle, blowdown and test valves: "Blue Dot" benders which bend both hard and soft tubing; new "Magic Eye" liquid indicator for refrigeration systems, and "Poly-Flo" fittings and plastic tubing for making up medium and high pressure hose lines will be featured.

INDEPENDENT REGISTER CO., THE, 3747 E. 93rd St., Cleveland 5, Ohio—Booth 701

In attendance: B. N. Richardson, A. H. Ullman, K. B. Solberg.

Exhibiting: Registers and grilles for heating, cooling and ventilating. A large "Fabricated" grille for commercial work will be featured.

INDUSTRIAL SOUND CONTROL, INC., 45 Granby St., Hartford 12, Conn.—Booth S-27

INFRA INSULATION, INC., 525 Broadway, New York 12, N.Y.—Booth S-104

In attendance: J. R. Schwartz, Mrs. Tina Schwartz, William C. Ely, Jr., James J. Fallon, Henry Sokolow, L. Wyld.

Exhibiting: Full-depth edge-to-edge insulation.

INGERSOLL-RAND CO., 11 Broadway, New York 4, N.Y.—Booth 901

INSULATING CONCRETE CORP., 3100 K St., N.W., Washington 7, D.C.—Booth 118

In attendance: Edward B. Reinhard, M. T. Phillips, John C. Simpson.

Exhibiting: Underground pipe insulation.

INTERNATIONAL HEATER CO., 101 Park Ave., Utica 2, N.Y.—Booth 514

In attendance: J. J. Hildebidle, I. C. Barber, Elwood Hesch, Millar Wheeler, James Bond, William Landmesser, C. T. Moyer, Sr., C. T. Moyer, Jr., Jack Bennett, Jack Kaley, Lee Lininiger, Morgan Johnston.

Exhibiting: Assembled and non-assembled oil and gas counterflow, gravity, hi-boy and lo-

body furnaces; oil burning boiler. A new oil fired horizontal furnace will be featured.

INTERNATIONAL MFG. CO., 515 W. Main St., Oklahoma City, Okla.—Booth 825

IRON FIREMAN MFG. CO., 3170 W. 106th St., Cleveland 11, Ohio—Booth 60

JACKSON AND CHURCH, FURNACE DIV., 321 N. Hamilton St., Saginaw, Mich.—Booths 102-106

In attendance: C. W. Stuart, D. L. Perrot, L. S. Redford, F. C. Adams, Frank Young, Ray Boland, Arthur Pracker, Arthur Duwe, Paul Deuble, R. J. Hoover, H. K. Beck, Earle Schroeder, Robert Goughnour, Herbert Robinson.

Exhibiting: Warm air heating equipment—suspension units, large industrial basement models, commercial industrial counterflow and hi-boy models. New gas fired suspension equipment, oil fired suspension equipment, and basement equipment will be featured.

JANITROL HEATING & AIR CONDITIONING DIV., SURFACE COMBUSTION CORP., Toledo 1, Ohio—Booths 15-17-19

JEFFERSON ELECTRIC CO., 25th and Madison, Bellwood, Ill.—Booth 820

Exhibiting: Complete line of ignition transformers.

JENKINS BROS., 100 Park Ave., New York 17, N.Y.—Booth 450

JENN AIR PRODUCTS CO., INC., 333 N. Penn. St., Room 515, Indianapolis 4, Ind.—Booth 27

In attendance: G. V. Patterson, H. J. Kennedy, L. J. Jenna, Edw. Filkins, Ed Niederhofer, John F. Scanlan.

Exhibiting: Roof and wall mount spun aluminum exhaust fans. Entire new line of roof exhaust fans with many new cfm capacities will be exhibited.

JOHNSON CO., S. T., P.O. Box 223, Bridgeport, Pa., and 940 Arlington Ave., Oakland 8, Calif.—Booths 822-824-826

In attendance: D. E. Johnson, Al Dimick, Robert P. Johnston, W. E. Lees, Frank Scalia, W. S. Harlacher, A. V. Leudemann, Earl Cox, E. W. Mears.

Exhibiting: Oil burners, combination oil and gas burners, boiler-burner units, furnace-burner units, water heaters, and gas boilers. New oil burner with metering pump will be featured.

JOHNSON SERVICE CO., 507 E. Michigan St., Milwaukee 2, Wis.—Booths 42-44-46

In attendance: M. M. Herrick, L. C. Carlson, D. L. Plewes, W. L. Whalen, L. A. Davidson, G. A. Lillie.

Exhibiting: Automatic temperature and humidity controls as applied to school, hospital, industrial and public building installations.

JOHNS-MANVILLE SALES CORP., 22 E. 40th St., New York 16, N.Y.—Booth 702

In attendance: E. C. Koch, J. R. Allen, T. R. Gillan, R. A. Cimiotti, E. J. Sullivan, C. B. Hahn, H. Ickler, E. F. Ott, C. H. Dolan, S. V. Flynn, J. L. Lach, J. H. Dale, J. H. Chidester, G. F. Crumlish, T. P. Williams, H. E. Nixon, W. T. Huber, T. J. Carley, V. D. Suiter, T. Amader, W. T. Colborn, R. J. Madigan, J. Ebert.

Exhibiting: Thermal insulations and refractories; packings and gaskets; "Transite" warm air duct and gas vent; "Spintex" home insulation.

JOURNAL OF PLUMBING, HEATING, AIR CONDITIONING CONTRACTORS, 92 Martling Ave., Tarrytown, N.Y.—Booth C-18

Exhibiting: Publication

KAISER CO., E. B., 2114 W. Lake Ave., Glenview, Ill.—Booth 247

In attendance: Edw. B. Kaiser, Jr., J. Daniel Rupert.

Exhibiting: Underground and overhead insulated "Ebko" prefabricated piping systems, counterflow stack type heat exchangers, combination tank and suction heaters, tank heaters and preheaters, viscous liquid systems.

KAISER ALUMINUM AND CHEMICAL CORP., 1924 Broadway, Oakland 12, Calif.—Booth S-32

KAUSTINE FURNACE & TANK CORP., Perry, N.Y.—Booths 305-307

In attendance: J. B. Mollnow, Sr., R. E. Preine, Harry Oxenreider, W. F. Stahl, Jerry Boitano, Maurice Gutman, J. B. Mollnow, Jr.

Exhibiting: Oil fired winter air conditioning furnaces and new gas fired winter air conditioning furnaces.

KEENEY PUBLISHING CO., 6 N. Michigan Ave., Chicago 2, Ill.—Booth 12

In attendance: Chas. E. Price, Wallace J. Osborn, Robert A. Jack, C. M. Burnam, Jr., George C. Cutler, Clyde M. Barnes, Robert W. Roose, Thomas V. Johnson, James E. Sacra, David V. Mahan.

Exhibiting: Heating, Piping & Air Conditioning magazine; American Artisan magazine; market information.

KENNARD CORP., 1819 S. Hanley Rd., St. Louis 17, Mo.—Booths C-30 and C-32

In attendance: Ben M. McDougall, Sam M. Kennard, III, W. Boardman Jones, Jr., Fred W. McKenna, E. John Hill.

Exhibiting: Heating and cooling coils, 3 and 5 ton cooling towers, 10 ton liquid chiller, and scale model of a multi-zone unit. Development of a contour fin designed to increase the heat transfer on the air side of cooling and heating coils "will be previewed."

KENT CO., INC., THE, Corner Canal and S. James Sts., Rome, N.Y.—Booth 447

In attendance: Ed P. Wittschiebe, Leon L. Steele, George W. Blanchard, Ken Frames, Phil V. Hugues, Phil T. Hugues, Joe Hugues.

Exhibiting: Double suction furnace cleaner with extra dirt receptacle tank.

KEWANEE-ROSS CORP., 101 Franklin St., Kewanee, Ill.—Booths 43 & 45

In attendance: W. C. Russell, E. M. Palmer, Ben H. Schulze, C. E. Bronson, J. H. Hartman, C. K. Ferguson, E. E. Druin, G. C. Zang, H. W. McClure, E. J. Lambrecht, Tom B. Mansfield, C. R. Dougherty, T. F. Maher, Jr., R. M. Turner, L. W. Charlet.

Exhibiting: Steel boilers.

KINETIC CHEMICALS DIV., E. I. du PONT de NEMOURS & CO. (INC.), 7520 Nemours Bldg., Wilmington 98, Del.—Booth 335

In attendance: R. J. Thompson, W. A. Bours, III, A. H. Lawrence, R. L. Williams, Charles Wirth III, R. B. Sangston, J. A. Landt, J. G. Gordon III, Dr. D. E. Kvalnes, D. C. McSorley, J. E. Lincoln.

Exhibiting: "Freon" fluorinated hydrocarbon refrigerants for use in air conditioning equipment.

KINNEY MFG. CO., Subsidiary of the NEW YORK AIR BRAKE CO., 3529-3541 Washington St., Boston 30, Mass.—Booths C-27, C-29

KODY BLOWER CO., 1150 Southard St., Trenton 5, N.J.—Booth S-6

In attendance: Morris Kody, James MacG Means, Marshall P. Oothout, V. C. Snowberger.

Exhibiting: Tube axial fans, direct and belt driven for ordinary and high temperature applications; powered roof fans, both hooded and upblast type; venturi orifice fans; portable and stationary man coolers; portable vent sets; bisected or bifurcated fans; cast aluminum propellers. Stainless steel tube axial and bisected or bifurcated fans for chemical resistance and high temperature applications will be featured.

KORFUND CO., INC., THE, 48-15 32nd Pl., Long Island City 1, N.Y.—Booth 548

In attendance: S. Rosenzweig, D. Vance, J. Harris, J. Weindling, R. Haring, E. G. Haring, N. Creash, L. Perlow, A. Ruf, J. Hammond, J. Welch.

Exhibiting: Duplex twin rail fan and motor base, steel spring isolators, "Elasto Rib," cork products. Type "VPS-L Elasto Rib" damper will be featured.

KRITZER RADIANT COILS, INC., 2901 W. Lawrence Ave., Chicago 25, Ill.—Booth 732

In attendance: C. G. Newton, L. D. Mandell, E. J. Hoppe, C. C. Schedler, C. N. Rink, J. K. MacLean, D. M. Archer, C. B. Sechtig, K. Jernstrom.

Exhibiting: Baseboard units, fin pipe radiators, radiant coils, finned pipe, new indirect ferrous and non-ferrous finned heating surface, finned tubing, brazed end valves, hand and modulating radiator valves for steam and hot water systems, and solder joint valves. "K" line baseboard and slope top baseboard will be featured.

KRUEGER AIR CONDITIONING CO., 19 E. Rillito St., Tucson, Ariz.—Booth S-122

LAMNECK DIV.,—see CLAYTON & LAMBERT MFG. CO.

LAU BLOWER CO., THE, 2001 Home Ave., Dayton 7, Ohio—Booth 72

In attendance: Bruce D. Epstein, E. V. Sullivan, T. I. Byrd, H. W. Faulkender, J. B. Burrows, W. H. Wentling.

Exhibiting: Attic fans, window fans, blowers, and featuring the "Econo-Pak" blower, which provides five air discharge positions and 10 variations in motor mounting with the single package for residential heating and air conditioning.

LEWIN-MATHES CO., 1111 Chouteau Ave., St. Louis 2, Mo.—Booth 709

In attendance: Alan B. Lewin, Rod J. Lewin, James Dreyer, Larry Fries, Henry Stucke, Frank Patrick.

Exhibiting: Seamless copper tubing in sizes 1/8 in. through 6 in. A miniature sized scale model draw bench will be drawing copper tubing.

LIBBEY-OWENS-FORD GLASS CO., Toledo 3, Ohio—Booth 34

LIMA REGISTER CO., THE, 651 N. Baxter St., Lima, Ohio—Booth 74

In attendance: H. R. Pataky, C. J. LeMaster, R. B. Morey, H. F. Robinson, C. B. Armour.

Exhibiting: Diffusers, registers, and grilles for heating and air conditioning. New extended baseboard diffuser and new square ceiling diffuser will be featured.

LIPMAN DIV., YATES AMERICAN MACHINE CO., 701 Fourth St., Beloit, Wis.—Booth 117

In attendance: Fred H. Kibler, M. W. Anderson.

Exhibiting: Water and air cooled packaged air conditioners, automatic ice cubers, and an ice crusher.

LOCKFORMER CO., 4615 W. Roosevelt Rd., Chicago 50, Ill.—Booth 731

In attendance: George W. Lamberson, Harold G. Flagler, Edward C. Bill, John L. Davis.

Exhibiting: Standing S-cleat rolling machine. "Lockformer" with auxiliary double seam rolls, "Lockformer" with flanging attachment, complete power slitter, "Cleatformer," "Easy Edger." New "Snap Lock" machine will be shown for the first time.

LYCOMING DIV., AVCO MFG. CO.,—see SPENCER HEATER

MAGNAFLOW PUMP CORP., 7 Elm St., Westfield, N. J.—Booth S-105

In attendance: S. H. Gamp, T. D. Propper, D. N. Mueller, M. R. Kovner, C. M. Cowan, and held representatives.

Exhibiting: Pumps.

MAGNETROL, INC., 2110 S. Marshall Blvd., Chicago 23, Ill.—Booths 417-419

In attendance: Lester E. Stybr, Richard J. Haupt and local sales representatives.

Exhibiting: Boiler water level controls, and industrial controls for liquid level and flow applications for "practically any liquid at any pressure and temperature" will be featured.

MAID-O'-MIST, INC., 3217 N. Pulaski Rd., Chicago 41, Ill.—Booth 648

In attendance: O. V. Woolley, H. J. Carr, J. A. Madden, J. L. Edgar, C. W. Byrum, F. G. French, H. T. Waterstraat, E. J. Busch, Dean Hicks, James McEntee, Joseph O'Connor, Wm. Mussun, Ralph Frey, George C. Hench, I. Roy Guild, Edward E. Berthet, W. H. Wilkinson, H. E. Culley, M. D. Puckett, E. H. Price, R. C. Schneider, L. E. Pelletier, Ken Pelletier, Cliff Tomlinson.

Exhibiting: Warm air, hot water, steam and atomizing spray automatic humidifiers and related items; float operated air valves for hot water heating systems; balancing valve adapter units for hot water heating systems; water line float control valves; humidifier valves; water feeders and cut-offs. Balancing valve adapter units for making up balancing valves which, when sweat fitted into a stock copper tee or screwed into an iron tee, completes a balancing valve will be featured. These adjustable balancing adapters, plus the normally stocked tees, make balancing valves for radiators, convectors, radiant coils, mains, etc.

MAMMOTH FURNACE CO., THE, 509 Vandalia St., St. Paul 4, Minn.—Booth S-82

In attendance: Dean C. Rupp, Harold J. Collins, Ralph J. Scheu, Bert Mjolsness.

Exhibiting: Commercial and industrial warm air furnaces, and new "Commercial-Aire" direct fired space heater type furnaces, which will be publicly shown for the first time.

MANVILLE BOILER CO., INC., Stiger St., Hackettstown, N. J.—Booth 440

MARATHON ELECTRIC MFG. CORP., Cherry & Randolph Sts., Wausau, Wis.—Booth S-85

In attendance: R. V. Jones, P. F. Ankla, A. Milhaupt, A. D. Pool, R. P. Salzman, A. W. McCall, P. H. Monaghan, R. M. Pike, C. P. Packard, W. A. Moody, Jr., H. W. Thode, P. H. Walsh, D. E. Baker, F. H. Sturz, J. P. Toto, J. O. Tuohy.

Exhibiting: Electric motors for heating, ventilating and air conditioning; light weight terminal blocks. A new 250 hp explosion-proof motor built in a 680 series frame will be shown for the first time. New oil burner, blower and fan motors will also be featured.

MARIETTA METAL PRODUCTS CORP., Marietta, Pa.—Booth 53

In attendance: John Hancock, Paul Commaker, Russell Burkett.

Exhibiting: Domestic house heating boilers, boiler-burner units, warm air furnaces and warm air units, and oil fired unit heaters.

MARLEY CO., THE, 222 W. Gregory Blvd., Kansas City 14, Mo.—Booth 325

In attendance: L. T. Mart, J. A. Cameron, L. A. Christensen, R. J. Powell, Don Cousins, M. H. McWilliams, R. W. Maze, E. W. Rick, R. M. Sharp, G. D. Truscott, W. V. McCoy, J. P. Ketcham, W. W. Starke, C. A. Smith, W. G. Cramer, H. J. Bierman.

Exhibiting: Packaged steel double-flow water cooling "Aquatower," cutaway model of an "Aquatower," model of double-flow "Aquatower," "AquaCooler." The "AquaCooler," and two of the "Aquatowers" will be shown for the first time.

MARLO COIL CO., 6135 Manchester Ave., St. Louis 10, Mo.—Booths 73-75

In attendance: L. C. Pellegrini, H. R. Iverson, K. W. Wicks, W. B. Moses, J. J. Kramer,

F. Ed. Ince, F. G. Meyers, V. Porta, George Flinn.

Exhibiting: Cooling towers, evaporative condensers, central station heating and cooling units, perimeter type remote heating and cooling units, and air cooled condensers. New line of air cooled condensers and several new designs of remote heating and cooling units for hotel, office building and institutional applications will be featured.

MARSH HEATING EQUIPMENT CO., 3501 W. Howard St., Skokie, Ill.—Booth 37

In attendance: James Emmett, Jr., William Ensign, Robert E. Barnett, Don Warner, Harry Kirby, Charles Kelly, Sid Kauffman, Sr., Harold Mitschler.

Exhibiting: Heating specialties, gages, thermometers, needle valves, water regulating valves.

MAXITROL CO., 12200 Beech Rd., Detroit 39, Mich.—Booth 333

In attendance: Frank Kern, Jr., Charles Stang, Jr., Dan J. Tell, Robert T. Hlavin, Herb Schlachter, Don L. Zorn.

Exhibiting: Gas appliance pressure regulators in pipe sizes from 1/4 through 3 in., including products specially suited for use as pilot pressure controls and range regulators. Two new models feature a synthetic rubber seat.

MCDONNELL & MILLER, INC., 3500 N. Spaulding Ave., Chicago 18, Ill.—Booth 734

In attendance: E. N. McDonnell, N. W. Swanson, George La Roi, John James, Dick Berry, James Ramsay, Howard Peary, Al Behrens, John Dobie, Merrill Blankin.

Exhibiting: Safety devices for steam and hot water boilers. A new high pressure pump control, low water fuel cutoff and alarm of new design will be displayed for the first time.

MCQUAY, INC., 1600 Broadway N.E., Minneapolis 13, Minn.—Booth 53

In attendance: Willard B. Buck, Alvin R. Flynn, Frank F. Altman, Wesley H. Markson, Byron James, H. Blake Thomas, Roy J. Resch, Henry B. Williams, Donald P. Wilson.

Exhibiting: Window unit evaporator and condenser coils; residential evaporator coils; steam coils; water coils; direct expansion coils; horizontal unit heater; vertical unit heater; floor, ceiling, "Hideway," and basic type room "Seasonmakers." New air cooled condensers and one and two row booster coils will be introduced.

MERCROID CORP., THE, 4201 W. Belmont Ave., Chicago 41, Ill.—Booth 13

In attendance: Hugh Courteol, J. W. Owens, W. E. Jones, John Shedden, R. F. Fisher, P. J. Provost, W. L. Colterjohn, E. S. Sarson, F. W. Ayer, R. O. Martinsen, V. S. Krale, I. E. McCabe.

Exhibiting: Complete line of sealed mercury contact equipped automatic controls for heating, ventilating, refrigeration and air conditioning, most types being available for indoor, outdoor and hazardous locations.

METALBESTOS DIV., WILLIAM WALLACE CO., P.O. Box 137, Belmont, Calif.—Booth S-88

In attendance: A. L. Hawley, Jr., C. E. Blome, Allen A. Putt, Harry A. Shook, E. C. Whitcomb.

Exhibiting: Round and oval gas vents and flues, assorted lengths of round and oval "Metalbestos" gas vent pipes with fittings. New "WV" oval pipe with new "Fastloc" coupler will be featured.

METALS & CONTROLS CORP., GENERAL PLATE DIV., SPENCER THERMOSTAT DIV., 34 Forest St., Attleboro, Mass.—Booth 50

In attendance: W. Bartlett, L. Burch, L. Comee, J. Cooney, J. Durkee, R. Glidden, C. Gustafson, E. Jastram, E. Kurtz, J. Moorhead, G. Morrison, N. Naylor, F. Ochsner,

T. O'Keefe, J. Ottmar, C. Patterson, R. Peck, U. Savolainen, R. Sears, S. Swift, D. Wells, A. White, J. Woodward.

Exhibiting: "Klixon" inherent overheat motor protectors, motor starting relays; "Thermosnap" temperature controls; snap acting hermetically sealed controls; "Klixon" circuit breakers, relief valves; "Trudex" thermostat metal, "Alcuplate" copper clad aluminum composite; "Alnifer" aluminum-nickel-iron composite; "Nifer" nickel iron composite; "Fronco" bronze copper composite; "Bondwich" silver copper nickel composite; newly introduced stainless steel clad copper; electrical contacts.

METROMATIC MFG. CO., 21 Henderson St., Everett 49, Mass.—Booths 121-125

METROPOLITAN REFINING CO., INC., 50-23 23rd St., Long Island City 1, N. Y.—Booth C-38

In attendance: C. M. Sterne, Fred Hodgdon, B. E. Zolit, M. M. Schlissel, H. B. Charak. Exhibiting: "Vaporene," "DuBoth," "Corrodine," "Sootracide," and "Sludgout."

MID-CONTINENT METAL PRODUCTS CO., 1960 N. Clybourn Ave., Chicago 14, Ill.—Booth 710

In attendance: C. F. Petersen, E. W. Haedike. Exhibiting: Power gas burners and combination gas-oil burners, featuring a new combination gas-oil burner.

MILLER VALVE CO., INC., 1620 Pennsylvania Ave., Pittsburgh 35, Pa.—Booth 320

In attendance: John R. Miller, T. C. Miller. Exhibiting: Center-guided, shock-proof check valves. Non-slam check valves that "are silent in operation, eliminate water hammer and can be installed in any position" will be featured.

MILWAUKEE ELECTRIC TOOL CORP., 5316 W. State St., Milwaukee 8, Wis.—Booth C-16

In attendance: G. Heaston, M. Hansen, M. Gleisner.

Exhibiting: Portable electric tools. Demonstrations of the "Sawzall" and "Tri-speed" right angle drills will be featured.

MILWAUKEE GAS SPECIALTY CO., 730 N. Jackson St., Milwaukee 1, Wis.—Booth 444

In attendance: H. E. Toelle, J. H. Thornbery, L. W. Bowerman, D. R. Weidenfeller, S. L. Kile, G. F. Walker, P. S. Brant, E. E. Kriege, P. A. DeLeon.

Exhibiting: New fan control, new limit control, new combination fan and limit control, new room thermostat, and "Baso" automatic pilot valves and switches.

MILWAUKEE VALVE CO., subsidiary of A-P CONTROLS CORP.—see A-P CONTROLS CORP.

MINNEAPOLIS-HONEYWELL REGULATOR CO., 2753 4th Ave., S. Minneapolis 7, Minn.—Booth 103

In attendance: J. E. Haines, J. S. Locke, E. F. Snyder, V. D. Wissmiller, C. W. Proctor, Jr., L. B. Belford, A. H. Koch, Fred Kaiser, H. D. Bissell, K. L. Wilson, Dick Locke, W. W. Martens, Stan Marshall, K. W. Schick.

Exhibiting: Pneumatic, electric and electronic automatic controls systems for all types of heating, ventilating and air conditioning. An electronic wireless control system "of the future," summer-winter control systems for residential year 'round heating and cooling, and a control system incorporating electronic sensing elements and pneumatically actuated devices will be featured. Among the features of the exhibit will be a new "Schoolmaster" control panel which also provides fire warning through remotely placed fire sensing elements.

MIRROR PATENTED STOVE PIPE CO., 65 Park St., Hartford, Conn.—Booth 721

In attendance: Henry A. Kahn, Robert E. Stone.
Exhibiting: Draft diverters for gas heating appliances, flue pipe and fittings in the following finishes — chromesteel, mirror black enamel, galvanized, and blue finishes.

MITCHELL MFG. CO., 2525 N. Clybourn Ave., Chicago 14, Ill.—Booth 631

In attendance: B. A. Mitchell, H. G. Haas, L. H. Solomon, R. Lodge, M. Kagas.
Exhibiting: Room air conditioners, residential dehumidifiers, commercial and residential packaged air conditioners and year 'round heating and cooling units. All will be shown for the first time. Exclusive "Expando-Mount" on room air conditioners will be featured.

MODINE MFG. CO., 1500 DeKoven St., Racine, Wis.—Booth 934

In attendance: A. G. Dixon, O. E. Desmond, W. R. McMahon, M. J. Druse, A. J. Swartz, W. E. Peirce, H. J. Clark, R. D. Bitzer.
Exhibiting: Steam and hot water unit heaters, gas unit heaters, cabinet units, and convectors. "Airdirioners" and gas duct furnace will be featured.

MONARCH MFG. WORKS, INC., 2501 E. Ontario St., Philadelphia 34, Pa.—Booth 810

In attendance: T. W. Murphy, E. B. Frame, J. M. Carroll, J. C. Underwood, C. E. Fink, V. B. Kathe, E. S. Gallagher, R. F. Stone.
Exhibiting: Oil burner nozzles, air conditioning sprays and oil burner accessories.

MORRIS SHEET METAL WORKS, 635 W. Mound St., Columbus 23, Ohio—Booth S-78

In attendance: Edward A. Morris, Roy A. Fetterman, Jr.
Exhibiting: Stainless steel cooling towers, fabricated of stainless steel with all brass fittings and bolts, of knock-down construction and with all-heart-redwood filling.

MORRISON PRODUCTS, INC., 16816 Waterloo Rd., Cleveland 10, Ohio—Booth 605

In attendance: Hunter Morrison, Hunter Morrison, Jr., Thompson Morrison, Al Galaba, W. H. Tonner, T. W. Jennens.
Exhibiting: Complete blower assemblies, new direct drive blowers, blower parts for building blower assemblies. A new direct drive blower with 4-way discharge will be featured.

MORRISON STEEL PRODUCTS, INC., 601 Amherst St., Buffalo 7, N. Y.—Booths 140-148

In attendance: S. Morrison, J. Kohnstamm, W. Duffy, A. Ennis, D. Grant, L. Hine, C. O. Rainey, C. Stahlka.
Exhibiting: New sizes, models, colors and capacities of warm air heating and cooling equipment. New counterflow, upflow, low-boy and basement furnaces and horizontal gas and oil furnaces and air conditioning units will be featured.

MORSE-SMITH-MORSE CO., THE, 165 Dexter Ave., Watertown 72, Mass.—Booth S-16

In attendance: Robert P. Johnston, John C. Dieselman.
Exhibiting: "Firomatic" fusible valves, non-fusible valves, tank valves, tank-filter valves, fuel oil filters, fuel oil tank gages, thermal switches, vent caps, fill boxes, fill caps. Tank valves for bottom outlet tanks will be featured.

MORTON ENGINEERING SERVICE, PAUL S., 609 Bangor Rd., Lawrence, Mich.—Booth S-115

In attendance: Paul S. Morton, Mac W. Thomas.
Exhibiting: Btu calculator, area and volume calculator, Btuh calculator, area and crackage calculator, heat loss data and calculation sheet. The Btuh calculator and the area and

crackage calculators, as well as the heat loss data and calculation sheet, will be shown for the first time.

MUELLER CLIMATEROL, 2005 W. Oklahoma Ave., Milwaukee 15, Wis.—Booths 913-917-921-925

In attendance: H. P. Mueller, F. J. Nunlist, H. P. Mueller, Jr., R. W. Weekes, J. H. Reock, L. A. Miles, H. B. Smith, L. N. Zimmerman.
Exhibiting: Residential and commercial heating and air conditioning equipment, and incinerators. New combination heating and air conditioning unit will be featured.

MULTI-VENT DIV.—see PYLE-NATIONAL CO.

MUNCIE GEAR WORKS, INC., 700 E. Wysor St., Muncie, Ind.—Booth C-14

In attendance: Marvin Smith, D. B. Dell, C. M. Ehrhardt, S. E. Brown, J. P. Connelly, W. F. Fell, John Nevin.
Exhibiting: "Marvail" air conditioning units.

NASH ENGINEERING CO., THE, South Norwalk, Conn.—Booth 400

NATIONAL HEATER CO., INC., 2180 Cleora Ave., St. Paul 4, Minn.—Booth S-10

In attendance: G. T. Costello, S. F. Stewart, A. A. Kosarin, B. A. Kosarin, T. E. Besemer, E. P. Murr, W. M. Kerr, E. M. Tarnoff, H. A. Pietsch, J. J. Heilman, and others.

Exhibiting: New fully assembled, wired, and flame tested light oil fired heater-burner-blower unit and new combination gas and light oil fired change-over model. A cutaway model will be featured.

NATIONAL HEATING PRODUCTS SALES LTD., 4824 Cote des Neiges Rd., Montreal, Que., Canada—Booth S-74

NATIONAL RADIATOR CO., THE, 221 Central Ave., Johnstown, Pa.—Booth 507

In attendance: C. M. Baumgardner, J. W. LeRoy, R. S. Doherty, C. J. Philage, P. J. Bracken, A. K. Tinker, A. J. George, R. K. Bales, A. R. Herske, F. W. Eichler, H. F. Muth, R. M. Reinckens, Joseph Zidalis, C. J. Cusick, M. J. Cianciulli, J. H. Johnston, F. R. Kriebel, L. M. Lyall, W. J. McDougal, G. T. Moran, C. A. Piez, M. M. Taylor.
Exhibiting: Complete line of hot water and steam heating equipment including boilers, heat distributor units and accessories. The "National Packet" — (an "all-in-one" automatic home heating unit and domestic hot water supply), "National Art" baseboard (a heat distributor installed along the outside walls at the living level) and new large residential oil heating unit will be featured.

NATIONAL RADIATOR CO., VIKING AIR CONDITIONING DIV.—see VIKING AIR CONDITIONING DIV.

NELSON DIV., HERMAN, AMERICAN AIR FILTER CO., INC., 215 Central Ave., Louisville 8, Ky.—Booths C-116, C-118

In attendance: Charles S. Stock, John L. Kline, William J. Killian, Irving W. Clark, Frank T. Carroll, John J. Willis, Robert F. DeLay, W. N. Murray.
Exhibiting: Centrifugal fans, unit heaters, propeller fans, and featuring heating and ventilating units.

NESBITT, INC., JOHN J., State Rd. & Rhawn St., Philadelphia 36, Pa.—Booths C-157, C-161, C-163, C-169

In attendance: A. J. Nesbitt, J. J. Nesbitt, Jr., W. D. Wideman, H. B. Hedges, J. J. Merrick, R. B. Sweet, E. W. Wing, Ray Wolf, E. A. Grostas, K. W. Will, M. J. Murray, T. L. Roswell, W. E. Hubbard.

Exhibiting: Unit ventilator equipment for schools, including the "Syncretizer" and "Syncretizer" with "Wind-O-Line"; "Sill-Line" finned radiation (wall hung and with storage cabinets); cabinet type unit heaters; baseboard radiation; heating and cooling surface; air conditioning unit; gas, steam and hot water unit heaters. A new air conditioning unit, new steam distributing tube coil, new cabinet type unit heater, and new series "Wind-O-Line" system for forced hot water heating will be featured.

NEW YORK AIR BRAKE CO.—see AURORA PUMP DIV., HYDRECO DIV., and KINNEY MFG. CO.

NEW YORK BLOWER CO., THE, 3155 S. Shields Ave., Chicago 16, Ill.—Booth 350

In attendance: E. E. Trickler, Bill Mathis, C. J. Trickler, Del Mutimer, John T. Massey.
Exhibiting: Newly designed forward curved and backward curved centrifugal fans.

NIAGARA BLOWER CO., 405 Lexington Ave., Chrysler Bldg., New York, 17, N. Y.—Booths 513-517

In attendance: Paul H. Schoepflin, Ralph C. Knight, H. F. Lowe.
Exhibiting: Air conditioning units, high pressure steam unit heaters, "Aero" heat exchangers, and "No Frost" refrigerating units.

NIAGARA FURNACE DIV., FOREST CITY FOUNDRIES CO., 2500 W. 27th St., Cleveland 13, Ohio—Booth C-44

In attendance: W. C. Kremser, R. H. Leisenheimer, I. E. Seith, Robert Fritz, Jim Harrison, Frank Walbridge, William Spaine, Otto Zeman.

Exhibiting: Cast iron, gas fired units; steel, gas fired units in highboy, downflow and basement models; oil fired highboy, downflow and basement models.

NIAGARA MACHINE & TOOL WORKS, 637-697 Northland Ave., Buffalo 11, N. Y.—Booths 706-708

In attendance: L. L. Hock, J. S. Selan, J. H. Horton, J. J. Ortalli.
Exhibiting: Sheet metal working tools and machines. Universal power grooving machine which closes single lock seams and also Pittsburgh lock seams will be featured.

NORMAN PRODUCTS CO., 1150 Chesapeake Ave., Columbus, Ohio—Booths 848 & 947

In attendance: E. A. Norman Jr., C. A. Reichelderfer, R. E. Millikan, O. R. Lutz, L. E. Bruce, H. Gallin.
Exhibiting: Horizontal gas fired furnace, residential and industrial gas conversion burners, school room heater, duct heater, unit heater, air conditioning equipment. The school room heater will be featured.

OLSEN MFG. CO., C. A., Filbert St., Elyria, Ohio—Booths 36 & 57

Exhibiting: "Luxaire" combination heating and cooling, year 'round air conditioning units (gas and/or oil fired heating); summer air conditioning units (self-contained, water cooled and air cooled remote types); gas and/or oil fired basement winter air conditioning units; gas and/or oil fired utility and counterflow air conditioning units; gas and oil fired horizontal air conditioning units; gas and/or oil fired gravity furnaces; gas fired unit heaters; gas conversion burners; oil conversion burners; blower-filter units; gas incinerators; and "Moncrief Surefit" warm air duct fittings and registers. New air conditioning units of 2, 3 and 5 ton capacity, newly styled gas fired unit heaters, and two new large capacity oil fired horizontal units with outputs of 220,000 and 400,000 Btu per hr will be featured.

ORR & SEMBOWER, INC., Morgantown Rd., Reading, Pa.—Booth 800

In attendance: S. D. Distelhorst, R. C. Gray,

A. J. Szykiewicz, L. A. Roethe, R. C. Currie, W. P. Williams, J. Darlington.
Exhibiting: "Powermaster" packaged automatic boiler. "Votiflow" fuel burning system. "Autolec" electric boiler.

OWENS-CORNING FIBERGLAS CORP., National Bank Bldg., Toledo 1, Ohio—Booth S-42

In attendance: R. W. Farris, R. C. Brower, W. S. Haynes, W. A. Stutts, R. J. Littin, W. F. Condon, W. E. England, H. E. Renz.

Exhibiting: Molded insulation, "Fiberglas" gasket material, "Dust-Stop" filters, duct insulation, "Fiberglas" pipe insulation, furnace insulation, "Fiberglas" reinforced plastics for air conditioning units. Molded insulation and gasket and vibration dampening material will be featured.

PACIFIC STEEL BOILER DIV., UNITED STATES RADIATOR CORP., 439 Penobscot Bldg., Detroit 26, Mich.—Booth 30

In attendance: Howard B. Steggall, Edmund J. Grady, E. F. Hackett, D. E. Welsh, J. A. Hallinan.

Exhibiting: Steel heating boiler, steam heating equipment, hot water heating equipment, and general heating equipment. A new application of oil burning with a "Pacific" boiler will be featured.

PARAGON ELECTRIC CO., 1600 Twelfth st., Two Rivers, Wis.—Booths 717-719

In attendance: W. A. Petersen, R. V. Mitchell, T. P. Casey, J. Neill.

Exhibiting: Time controls.

PATTEN CO., J. V., 550 DeKalb Ave., Sycamore, Ill.—Booth 110

In attendance: A. A. Boyle, E. H. Lambert, Shepard Herman, L. R. Williams, Wm. Webster, Wm. Millison, Wallace Landau, S. R. Roberts, Don C. Patten, John H. Patten, S. F. Gitterman.

Exhibiting: Oil fired and gas fired "Sun Fuel-Master" furnaces, lo-boys, hiboyes, (upflow and downflow), suspended furnaces. Combination heating and cooling units. Air cooled and water cooled cooling units. New line of combination heating-cooling equipment, and new line of oil or gas fired residential furnaces will be featured.

PATTERSON-KELLEY CO., INC., THE, 105 Warren St., East Stroudsburg, Pa.—Booth 909

PEERLESS ELECTRIC CO., THE, 1401 W. Market St., Warren, Ohio—Booth 410

In attendance: Walter A. Curtis, Lester C. Mills, R. E. Lininger, R. D. McCallum, A. O. Osborn.

Exhibiting: Fans and blowers, featuring new backward curve blower.

PEERLESS PUMP DIV., FOOD MACHINERY AND CHEMICAL CORP., 2005 Northwestern Ave., Indianapolis, Ind.—Booth 723

In attendance: Harold Franz, Edward W. Karpinski, Frank W. McCann, Carl L. Nickel.

Exhibiting: End suction pumps.

PEERLESS SALES DIV., 1611 Main St., Little Rock, Ark.—Booths S-41 and S-2

In attendance: R. D. Elgin, R. R. Pabodie, J. W. Creagh.

Exhibiting: Induced draft cooling towers, featuring residential models.

PENN BOILER AND BURNER MFG. CORP., Fruitville Rd., Lancaster, Pa.—Booth C-115

In attendance: Richard W. Payton, C. M. Lane, D. A. Esslinger.

Exhibiting: "Air-Rad," boilers, chiller units and year 'round comfort conditioning. A new water chiller and a new year 'round comfort conditioning unit will be featured.

PENN CONTROLS, INC., Goshen, Ind.—Booth 23

In attendance: R. S. Penn, E. B. Maire, R. H. Luscombe, K. W. Cash, R. V. Clark, J. Scarls, Paul Penn, R. L. Ratliff, Carlos Morgan, Emile Tassin, Cap Barr, Jim Garrett, George Sander, Robert Eichman, Bill Kase, Ed Corbett, Boyd Ralph, Frank Fessler, Jim Kinney, Ivan Stepnich, Harold King, Howard Shilling, Jud Forbes, Dave Belknap.

Exhibiting: Controls for gas, oil and coal heating and residential and commercial cooling. Combination heating-cooling residential air conditioning thermostat, and compact control centers for residential and self contained air conditioning systems, will be featured.

PENNSYLVANIA FURNACE AND IRON CO., 316 Pine St., Warren, Pa.—Booth 806

In attendance: Roy L. Blodgett, Horace J. Harvey, Christian S. Andersen.

Exhibiting: Gas fired boilers, winter air conditioning furnaces, gravity furnaces, floor furnaces, conversion burners, air conditioning cooling units. The furnaces, conversion burners and cooling units are new models recently approved by the AGA.

PERFECTION STOVE CO., 7609 Platt Ave., Cleveland, Ohio—Booths 18 and 38

In attendance: D. S. Smith, J. H. Rasmussen, Marc Resek, L. Bushfield, M. A. Miller, A. S. Bergschneider, M. H. Crist, H. W. Dean, C. A. Moore, H. C. Erikson, Harold Kiefer, G. A. Crowner, W. M. Potter, T. W. Russell, W. R. Wright, J. W. Shrank, R. S. Cadwallader, W. C. Meredith, S. C. Reese, A. B. MacLaren, W. S. Degarimore, Mrs. Alice Holton, W. J. Wilk, Joe Johnston, Howard Chew, Joe Giannone.

Exhibiting: Warm air furnaces and cooling units.

PERFEX CORP., 500 W. Oklahoma, Milwaukee 7, Wis.—Booth 532

In attendance: T. A. Ramey, M. Eastin, R. Horan, I. G. Bohman, E. Panthover, K. Watts, J. McGuire, M. Bowman, E. Spall.

Exhibiting: Coils for refrigeration and air conditioning; automatic controls for heating, ventilating, air conditioning.

PETRO, 3170 W. 106th St., Cleveland 11, Ohio—Booth 2

In attendance: C. E. Bailey, W. J. Hegan, G. A. Moore, J. E. O'Donnell, G. H. Martinik, A. G. Barry, L. V. Moore.

Exhibiting: Gun type oil burners, water heater, lowboy oil furnace, horizontal duct furnace, rotary industrial oil burner.

PHILLIPS DRILL CO., Michigan City, Ind.—Booth S-64

In attendance: J. L. Campbell, J. J. Kerwin, Bob Bowman, Bob Williams, Archie M. Pine, Howard C. O'Brien, J. M. Warnimont, Arnold W. Barnett, Wm. A. Benner.

Exhibiting: Expansion bolts (anchor bolts), featuring actual demonstrations.

PITTSBURGH PLATE GLASS CO., 1 Gateway Center, Pittsburgh 22, Pa.—Booth 748

In attendance: R. A. McLaughlin, R. R. Pryor, C. W. Olsen, A. W. Stevenson, W. E. Grasperger, H. J. Bygott, Jr.

Exhibiting: Fiber glass "Superfine" duct insulation will be featured and "Glasfloss" air filters will be shown.

PITZ FOUNDRY, INC.—see AMERICAN HYDROVAC

PLUMBING & HEATING BUSINESS, 130 E. 59th St., New York 22, N. Y.—Booth C-65

Exhibiting: Publication

PLUMBING, HEATING, AIR CONDITIONING WHOLESALE, 92 Martling Ave.,

Tarrytown, N. Y.—Booth C-18

Exhibition: Publication

POWERS REGULATOR CO., 3400 Oakton St., Skokie, Ill.—Booths 433, 435

In attendance: J. W. Powers, F. A. Murray, D. L. Ladd, K. M. Stevens, E. R. Bowman, C. A. Gustafson, D. A. Stott, W. E. Williams, D. A. MacWatt, E. K. Wagner, G. E. Fickett, C. P. Krantz, R. M. Spencer, M. W. Jones, C. J. Bootes, I. H. Dale, W. I. Collier, M. E. Weninger, R. E. DeWallace, M. E. Waddell.

Exhibiting: Complete line of temperature, pressure, and humidity controls. An improved series of water controllers will be featured.

PRAT-DANIEL CORP.—see THERMOBLOC DIV.

PREFERRED UTILITIES MFG. CORP., 1860 Broadway, New York 23, N.Y.—Booth 850

In attendance: R. S. Bohn, W. H. Bohn, R. G. Bohn, J. S. Kaplan, J. R. Arden, A. O. Swensen.

Exhibiting: Unit steam generator, horizontal oil fired rotary burner, horizontal combination gas and oil fired rotary burner, "Thermopak," commercial and industrial oil burning specialties, pump and heater set and pipe line and oil storage tank heating systems. "Thermopak" will be featured.

PREMIER CO., 755 Woodlawn Ave., St. Paul 1, Minn.—Booth S-126

PRIMOR PRODUCTS, INC., 2011 W. Beecher Rd., Adrian, Mich.—Booth S-21

In attendance: R. M. Herbert, T. H. Smoot, J. H. Parsons.

Exhibiting: Air conditioning units for central residential application, direct expansion systems, water chiller systems, water cooled and air cooled systems, hermetic and remote coil systems, vertical and horizontal units.

PULLMAN VACUUM CLEANER CORP., 33 Allerton St., Boston 19, Mass.—Booth 429

In attendance: Edgar A. Green, Norman Ruby, Alex McCall, Harold Goodwin, Robert Berns.

Exhibiting: Furnace and boiler vacuum cleaner.

PYLE-NATIONAL CO., THE, 1334 N. Koster Ave., Chicago 51, Ill.—Booth C-21

In attendance: George K. Raider, Robert Geocaris, Edmund Kurek, Robert Arnold, Chet Rhea, Otto Bochat.

Exhibiting: "Multi-Vent" air diffusers for heating, ventilating and air conditioning, featuring radiant panel in combination with air diffuser, and high pressure, high velocity converter for high velocity systems to proportion air as required.

QUICKDRAFT CO., 1150 S. Erie Blvd., Hamilton, Ohio—Booth S-77

In attendance: Alan P. Russell, John Akins, Jr., Arthur Fox, Jr., Howard C. Edwards.

Exhibiting: Standard and heavy duty draft induction equipment, switches and accessories. An animated display showing the equipment in operation in a typical automatic oil fired heating system will be featured.

QUIET HEET MFG. CORP. and QUIET KOOL CORP., sub. of EMERSON RADIO & PHONO. CORP., 46 Oliver St., Newark 5, N.J.—Booth 803

In attendance: J. D. Small, J. Longin, B. Sachs, M. Beline, P. Komroff, H. M. Spitzer, S. L. Sloan, W. A. Gamble, L. Pacent.

Exhibiting: Oil burners, gas burners, sump pumps, room air conditioners, central residential air conditioners, and commercial air conditioners, featuring new 1955 line.

QUINCY STOVE MFG. CO., THE, 825 Front St., Quincy, Ill.—Booths S-51, S-53

In attendance: Herman D. Tow, H. L. Hudson, A. L. Swartzmiller, J. L. Parsons.

Exhibiting: "Monogram In-the-Wall" oil fur-

nace and gas furnace; and recessed oil wall heater, which will be featured with a special modulating type thermostat.

RADIANT-RAY RADIATION, INC., 464 Hartford Ave., Newington, Conn.—Booth 310
In attendance: W. R. Becher, F. W. Becher, M. F. Becher, D. W. Erickson, E. C. Jackson, C. C. Cartwright, E. O. Davis.

Exhibiting: Baseboard radiation, "Airfoil" finned radiation and "Custom-Fit" enclosures, and "Radiant-Rayvector" wall radiation. New seamless copper tube with aluminum fins in large nominal sizes will be featured.

RADIANT UTILITIES CORP., 8817 18th Ave., Brooklyn 14, N. Y.—Booth 217

In attendance: Arthur A. Marcus, Joseph Bloom, Julius S. Goldberg, Jacob G. Goldberg.

Exhibiting: High pressure oil burners, sump pumps, submersible sump pumps, utility pumps, furnaces. A new low pressure oil burner will be featured.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden 2, N. J.—Booths S-84 & S-86

RALPH MFG. CO., P.O. Box 118, Wadsworth, Ohio—Booths 622-624

RANDALL GRAPHITE BEARINGS, INC., Greenlawn & Lake Sts., Lima, Ohio—Booth 65

In attendance: W. E. Dickerson, K. W. Strunk, C. W. Esch, Ray Chaney, E. Dorsey, H. C. Peterson.

Exhibiting: Bearings; self-aligning, self-lubricating graphited bronze pillow blocks; ball assemblies; safety collars; thrust washers; flange units; bearing brackets. Flange units, bearing brackets, and plastic lubrication will be featured.

RCS TOOL SALES CORP., 200 Moen Ave., Joliet, Ill.—Booth 339

In attendance: Thos. M. Sweeney, James A. Kinsella, George E. Schultz.

Exhibiting: "Super Saw" portable all-purpose power saw for roughing-in work, blades, and "Korner King" right angle drill attachment. New chrome alloy roughing-in blades will be featured.

REDMOND CO., INC., Owosso, Mich.—Booth 608

REFLECTAL CORP., (subsidiary, BORG-WARNER CORP.), 310 S. Michigan Ave., Chicago 4, Ill.—Booth 326

In attendance: R. E. Duncan, J. R. Frank, G. E. Johnson, A. R. Whitlock, R. F. Ballou.

Exhibiting: "Alfol" reflective insulation, "Kool-shade" sunscreen.

REFRIGERATION & AIR CONDITIONING CONTRACTORS ASSOCIATION, 228 N. LaSalle St., Chicago 1, Ill.—Booth 100

REMINGTON ARMS CO., INC., 939 Barnum Ave., Bridgeport 2, Conn.—Booth 808

In attendance: J. C. MacIntyre, Townsend Wheeler, C. J. Turner.

Exhibiting: "Stud Driver" powder actuated fastening tool. New studs approved by Underwriters' Laboratories and Factory Mutual Laboratories for hanging sprinkler pipe up to and including 2 in. diameter, and an approved 1/4-3/8 in. coupling for hanging standard hanger rods, will be featured.

REPUBLIC PRODUCTS CO., 7426 State Rd., Philadelphia 36, Pa.—Booth S-57

In attendance: W. H. Bunten, Ray Donnolly, Mr. Spencer.

Exhibiting: "Repco Thriftmaster" tubeless boilers, gas and oil; baseboard radiation; convactor radiation; "Aire Trim" baseboard (forced warm air); winter air conditioners (forced warm air) high and low boys; "V.T." tube boiler, oil fired.

RESEARCH PRODUCTS CORP., 1015 E. Washington Ave., Madison 10, Wis.—Booth 448

In attendance: A. W. Brown, J. G. Schultz, C. B. Rowe, P. N. Dutton, C. H. Soderberg.

Exhibiting: "RP E Z Kleen" air filters, "RP Alumaloy" industrial air filters, "RP" paint arrestors, and "RP Aprilaire." New humidifier will be featured.

RHEEM MFG. CO., 7600 S. Kedzie, Chicago 29, Ill.—Booth 301

In attendance: Paul Fetzek, A. F. Cassidy, Runo Anderson.

Exhibiting: "Year 'Rounder" combination heating and cooling; gas and oil fired forced air furnaces; room air conditioner; and remote air cooled cooling unit.

RICHMOND ENGINEERING CO., INC., "rh and Hospital Sts., Richmond, Va.—Booth S-68

In attendance: Owen W. Conley, Vaughan E. Calder, Jr., James K. Baird, Thomas C. McCarthy, Paul Hickman, Jack S. Lough, T. R. Sullivan, E. Starke Farley.

Exhibiting: Hot water heating coils, instantaneous heaters, hot water converters, hot water storage heaters and other related heat exchange equipment.

RICHMOND RADIATOR CO., 16 Pearl St., Metuchen, N. J.—Booth 831

In attendance: E. Reichert, V. Sherman, J. J. Hall, C. T. Sullivan, R. Somers, L. Maehling, H. Zeamer, D. D. Conover, C. E. Stoner, I. Lininger.

Exhibiting: Gas fired and oil fired units, cast iron and steel winter air conditioners, cast iron boilers, horizontal furnaces, gravity furnaces, cooling units, other types of automatic heating equipment.

RIC-WIL, INC., 24 Brown St., Barberton, Ohio—Booth 606

Exhibiting: Insulated pipe units.

RIDGE TOOL CO., THE, Elyria, Ohio—Booths S-44, S-79

In attendance: William L. Parcell, L. C. Richardson, Milo Sharp, Mike Fried, Carl Petersen.

Exhibiting: Pipe and bolt threading machine.

RITTLING CORP., THE, 831 Rand Bldg., Buffalo 3, N. Y.—Booth S-7

In attendance: J. B. Ritting, R. W. Ritting, R. J. Carter, D. F. Moran, Fred Thompson, Frank Helikson, Paul Fisher, Thos. Olesko, Millard Roberts, N. T. O'Rourke, J. W. Swanson, Oliver Holmes, Geo. Washington, Jr., Welby Rouse, Walter Strickland, Norman Conlon, Paul Thompson, Court Ahrens, Carlton Ferris, Chas. LeFevre.

Exhibiting: Pre-fab baseboard, "Sil" type radiator, "Silent" back draft damper, cabinet convectors, unit heaters, finned tube. The pre-fab baseboard and the back draft damper are new products.

ROBERTS-GORDON APPLIANCE CORP., 44 Central Ave., Buffalo 6, N. Y.—Booths 607-609

In attendance: W. S. Gordon, Jr., L. C. Smyth, R. I. Warnecke, W. E. Davis, J. W. Crim, R. T. Huyck, Edw. Neuman, R. G. Budden, William Sterling, Glenn Sterling, Herbert Vom Scheidt.

Exhibiting: Gas conversion burners, gas boilers, gas furnaces, gas unit heaters, gas-oil conversion burners. New hi-boy furnaces and lo-boy furnaces will be featured.

ROBERTSHAW FULTON CONTROLS CO.—see FULTON SYLPHON DIV.

ROCKWELL SPRING AND AXLE CO.—see TIMKEN SILENT AUTOMATIC DIV.

ROME-TURNEY RADIATOR CO., 109 Canal St., Rome, N. Y.—Booth 741

In attendance: William L. Lynch, John J. Boylan, Edwin J. Parry, E. L. A. Forster, Joseph M. Shannon, Francis M. Larkin, Thomas Murphy, Donald McKay.

Exhibiting: Convactor radiators and baseboard radiation.

ROTH CO., ROY E., 2420 4th Ave., Rock Island, Ill.—Booth S-1

In attendance: Roy E. Roth, Paul M. Roth, Arthur Reed, Robert Kress, Woodward Smith.

Exhibiting: Two-stage power plant pumps, regenerative turbine pumps, featuring low pressure stuffing boxes and balanced shaft loading.

RUSSELL CO., THE F. C., 1100 Chester Ave., Cleveland 1, Ohio—Booth 817

In attendance: P. McCormick, D. Black, B. Robertson, C. Ayers, H. Raymor, T. Maloney, F. Smith, L. Mucci, T. Sherry.

Exhibiting: "Rusco Picture-Windo" combination screen and storm door, 3-in-1 "Window-Door", screen door, "Californian" porch enclosure, combination self-storing screen and storm sash, "Challenger" window S.S., casement insulating sash (hinged and horizontal slide), glass-louver jalousie window, glass-louver jalousie door, "Challenger" awning.

SARCO CO., INC. and SARCOTHERM CONTROLS, INC., 350 Fifth Ave., New York 1, N. Y.—Booth 213

In attendance: L. Barfus, R. W. Cumming, P. E. Girardet, M. J. Marion, T. R. Stevens, R. H. Tuffield.

Exhibiting: Heating specialties, steam traps, temperature regulators, hot water specialties, controls for both hot water and steam heating systems.

SCHECTER BROS. CO., N. W. Cor. Hancock & Huntingdon Sts., Philadelphia 33, Pa.—Booth S-91

In attendance: Samuel Schecter, Morris Gross, Morris T. Ehrenfeld, Isadore Yasno, Francis McCusker, John Cascio.

Exhibiting: Galvanized prefabricated duct, fittings, furnace pipe and elbows.

SCULLY SIGNAL CO., 174 Green St., Melrose 76, Mass.—Booth 833

SEQUOIA MFG. CO., 1000 Brittan Ave., San Carlos, Calif.—Booth C-39

In attendance: Glenn Barnes, Arthur Theobald.

Exhibiting: Forced air heating and air conditioning units. New model of "Closet'er" type forced air residential air conditioning units will be featured.

SERVEL, INC. (AIR CONDITIONING DIV.), Evansville 20, Ind.—Booths 807-809

In attendance: Ken R. Mott, C. A. Gruggel, J. O. Yund, R. L. Brown, G. O. Galloway, R. C. Marbach, H. R. Nielsen, W. J. Hoening, J. T. Mooney.

Exhibiting: 25 ton absorption water chiller, 5 ton absorption refrigeration unit, 2 ton "All-Year" air conditioning unit, new electric 3 ton air conditioner, 3 and 5 hp "Supermet-ic" compressors, smaller compressors. A 1/2 ton glass model of an absorption system will be shown in operation.

SHAFFER CO., MARVIN D., 2464 Fletcher Dr., Los Angeles 39, Calif.—Booth C-55

In attendance: Marvin D. Shafer.

Exhibiting: "Donaldson" power roof ventilator, wall mounted ventilator; "Adams" 34,000 Btu counterflow furnace especially designed for use in house trailers or small apartments.

SHANA MFG., INC., 188 W. Randolph St., Chicago, Ill.—Booth S-46

In attendance: Harry Shaffer, Morton Simon, Jack Miller.

Exhibiting: Water cooled 2, 3 and 5 ton air conditioning units; air cooled 2, 3 and 5 ton units; and featuring 1½ ton air cooled unit; and combination air or water cooled units with oil or gas fired furnaces.

SIEMON MFG. CO., Grandview (Suburb) Kansas City, Mo.—Booth C-61

In attendance: R. W. Brown, Paul Lunkwicz, M. J. Murray.

Exhibiting: New "Power-Flame" gun type gas burners and "Power Combi-Matic" gas-oil Burners.

SIMPLAIRE, 521 Fifth Ave., New York 17, N. Y.—Booth C-154

In attendance: Don J. Ferraro

Exhibiting: "Spot Cooling" air conditioner.

SKUTTLE MFG. CO., Milford, Mich.—Booth S-58

In attendance: R. W. Geisler, K. M. Fournier, C. J. Theobald, J. W. Faulkner, G. J. Selby, William Debler, Sr., William Davis, Walter Stamberger, Jr., V. E. Devine, T. C. French, Wayne Gift, Wendell Franks.

Exhibiting: Humidifiers, featuring model 250 independently controlled and operated humidifier.

SLANT-FIN RADIATOR CORP., 87-49 130th St., Richmond Hill 18, N. Y.—Booth S-125

In attendance: Alvin Buschel, Milton M. Brooks, Melvin Dubin, Les Ogrin, Arthur Appelbaum, Sidney Groves, Irving Turninsky, Jack Marcus.

Exhibiting: "Slant-Fin" commercial finned tube radiators and residential baseboard radiators, and new "Square-Fin" commercial finned tube radiators and residential baseboard radiators. Also "Slant-Fin" finned evaporators for refrigeration. New types of enclosures will also be shown.

SMITH CORP., A. O., 3533 N. 27 St., Milwaukee, Wis.—Booth 714

In attendance: C. L. Hewitt, J. S. Robinson, D. V. Coon, S. E. Wolkenheim, K. E. Lofgren, W. A. Dunn, H. S. English, R. L. Fisk, C. W. Schulz, P. P. Toth, Ken O'Gorman, J. A. Needham, D. S. Shafer, T. M. Williamson, W. T. Halket, J. E. Akehurst, R. B. Chace, R. N. Clark, J. H. Harrigan, G. E. Hubler, J. V. Pepin, H. N. Johnson, S. J. Burbank, W. B. Furlong, C. W. Johnson, J. S. McCollough, J. H. Trimble, W. F. Manthei, A. H. Schlueter.

Exhibiting: Year 'round air conditioners, oil and gas fired furnaces, gas fired home heating boilers, gas conversion burners.

SMITH EQUIPMENT & SUPPLY CO., 1615 N. Central Ave., Chicago 39, Ill.—Booth S-120

SMITH CO., INC., H. B., 57 Main St., Westfield, Mass.—Booth 321

In attendance: John E. Reed, T. C. O'Connor, Leo Sudhaus, Guy Smith, Trevor Jackson, John J. Poyatt, E. J. Webber.

Exhibiting: New "Smith Century" gas boiler; "Mills" cast iron sectional boiler for larger buildings.

SNIPS, 5707 W. Lake St., Chicago 44, Ill.—Booth 135

SPARKLER MFG. CO., 169 Lake St., Mundelein, Ill.—Booth S-26

In attendance: Richard J. Stastny, John B. Anderson.

Exhibiting: Fuel oil filters.

SPENCER HEATER, LYCOMING DIV., AVCO MFG. CORP., 652 Oliver St., Williamsport, Pa.—Booth 129

In attendance: E. I. Boardman, R. R. Adams, C. W. Shaffer, K. E. Schooley, C. R. Miller, L. G. Gorman, E. L. Mahl, M. D. Vicchiarelli, D. Reinhardsen, H. A. Marchione, H. H. Cammann, Jr., N. M. Cott, R. F. Fagan, H. A. Johnson, C. K. Dennis, C. L. Bowman,

C. T. Montgomery, E. A. MacDonald, Greene Hogg.

Exhibiting: Divided low waterline boiler, residential steel heating boilers, "Suburban" oil burner-boiler package unit, and featuring "Rancher" gas burner-boiler unit.

SPENCER THERMOSTAT DIV.—see METALS & CONTROLS CORP.

SPI-ROL-FIN CORP., 133 Greenwood Ave., Pequannock, N. J.—Booth S-111

In attendance: F. R. Attwood, J. E. McGinnis, D. D. Attwood, F. Harbin, P. Orr, N. J. Driscoll, M. Portnoy, S. Schwartz.

Exhibiting: Baseboard radiation, steel fin industrial radiation, and domestic water coils, featuring new line of commercial radiation, new stainless steel baseboard cover, and new patented roller hanger for steel fin radiation.

SPORLAN VALVE CO., 7525 Sussex Ave., St. Louis 17, Mo.—Booth 729

In attendance: C. C. Grote, W. H. Krack, D. B. Rentschler, W. A. Reichenbach, T. H. Silary, F. C. Hawco.

Exhibiting: Thermostatic expansion valves, refrigerant distributors, solenoid valves, "Catch-All" filter-driers. An air conditioning coil with a refrigerant distributor, thermostatic expansion valve and filter-drier installed thereon will be featured.

SPRAGUE ELECTRIC CO., Marshall St., North Adams, Mass.—Booth S-93

In attendance: Neal W. Welch, Carrol Killen, Sidney L. Chertok, John G. Brent, James Galbraith, William M. Allison, Anthony Ruscito, Wilmer S. Trinkle, Charles H. Wacker, Charles Janton, Leon Podolsky.

Exhibiting: Capacitors, resistors, and radio noise filters. New rectangular drawn-case "Clorinol" capacitors for power factor correction of large air conditioners will be featured.

SQUARE D CO., 4041 N. Richards, Milwaukee 11, Wis.—Booth S-94

In attendance: W. E. Helle, J. B. Schifflin, T. P. D'Amour, C. R. Whitney, S. A. Johnson.

Exhibiting: Electric motor control—magnetic starters and pump control. New line of magnetic starters, and tank float switches in actual operation will be featured.

STANDARD STAMPING & PERFORATING CO., 3131 W. 49th Pl., Chicago 32, Ill.—Booth 344

In attendance: Wm. Ramquist, Lloyd Stone, Andrew Lavela.

Exhibiting: Registers and grilles.

STEEL PRODUCTS ENGINEERING CO.—see COMBUSTIONEER DIV.

STEPHENS-ADAMSON MFG. CO., Ridgeway Ave., Aurora, Ill.—Booth C-41

In attendance: Richard Glavan, Carl F. King, George Marsh.

Exhibiting: "Sealmaster" ball bearing units. Rubber mounted bearing units will be featured.

STEWART MFG. CO., INC., Grove Ave., Cedar Grove, N. J.—Booth 840

STEWART-WARNER CORP., U. S. MACHINE DIV., 320 North C St., Lebanon, Ind.—Booths 111 and 113

In attendance: Claude A. Potts, Walter E. Blake, Robert C. Hulse, Ray F. DeVaney, Walter R. Leander, and 10 "Winkler" district sales managers.

Exhibiting: "Winkler" oil burners, gas burners, oil furnaces, gas furnaces, gas water heaters, central air conditioning units; "Saf-Aire" gas wall heaters; recessed wall heaters for oil or gas. Vertical and counterflow furnaces for oil or gas and steel and cast iron boilers for oil will be featured.

STRONG, CARLISLE & HAMMOND CO., 1392 W. Third St., Cleveland 13, Ohio—Booth C-23

In attendance: R. L. Clark, H. H. Maltbie, W. O. Clark, Ed Buckholtz.

Exhibiting: Steam traps, pressure reducing valves, strainers, separators, vacuum traps, pumping traps, continuous blowdown valves, engine stops for overspeed protection. New "Hydro-flex" inverted bucket steam traps "for any pressure or temperature" will be featured.

STURTEVANT DIV.—see WESTINGHOUSE ELECTRIC CORP.

SUNBEAM AIR CONDITIONER DIV., AMERICAN RADIATOR & STANDARD SANITARY CORP., Elyria, Ohio—Booth 20

In attendance: T. W. McNeill, W. H. Baker, Jr., R. J. Berkshire, W. G. Senft, A. D. Sullivan, H. E. Rossell, Jr., W. W. Woodroof, R. H. Shine, C. M. Hoover, W. W. Follett, R. D. Kishbauch, W. L. Bradshaw, J. P. Farrell, W. J. Sullivan, W. D. Campbell, J. B. Mitchell, P. S. Agey.

Exhibiting: 3 hp commercial air conditioner; 2 hp residential air conditioner (with blower); new 2 hp horizontal air conditioner; new 2 hp residential air conditioner (add-on); counterflow gas winter air conditioner; new utility gas winter air conditioner; new basement gas winter air conditioner; utility oil winter air conditioner; new basement oil winter air conditioner; "Magne-filter" electrostatic air cleaner.

SUNDSTRAND ENGINEERING CO., 1325 Seventh St., Rockford, Ill.—Booth 818

In attendance: R. H. Gustafson, M. M. Miller.

Exhibiting: High pressure and low pressure domestic oil burners, and small commercial-industrial type oil burners.

SUNDSTRAND MACHINE TOOL CO., HYDRAULIC DIV., 11th St., Rockford, Ill.—Booth 231

In attendance: B. F. Olson, L. H. Schuette, A. H. Swenson, C. W. Lang, Floyd Carlson, L. T. Stoyke, Lou Dolan, R. W. Erikson, Pere Levin, B. L. Soderberg, W. R. Kiefer, R. E. Stevens, O. E. Mayfield, J. F. Griffey, B. L. Douglas, S. Ferraro.

Exhibiting: Fuel units (operating): model J showing single-stage plastic construction, model H two-stage, model AT air-oil fuel unit. New air-oil low pressure fuel unit under simulated fire will be featured.

SUN-RAY BURNER MFG. CORP., 139-24 Queens Blvd., Jamaica, N. Y.—Booth 139

In attendance: Alfred Metzger, Gabe M. Marin, Alfred Luft, Robert Adcock, Hugh Mallard, Martin Sones, Jack Maxwell, Henry Nickerson, Burt B. Vickery, Emmons Nickerson, F. W. Sieffert, Meyer Bressen, Wm. Oliver, Herbert Fowler, John Brecht, Bernard A. Thomas & Partner, R. P. Jones, Marvin Handler.

Exhibiting: Domestic and commercial oil burners (horizontal and vertical). New improved vertical flame burner, the "Bantam," with "minimum dimensions, maximum quality," will be featured. Live exhibit will show burners under fire.

SURFACE COMBUSTION CORP.—see JANITROL HEATING & AIR CONDITIONING DIV.

SYNCHRONOUS FLAME, INC., North Main St., Walworth, Wisc.—Booth S-39

In attendance: Charles E. Stevens, Jr., Charles T. Monroe.

Exhibiting: Combination gas-oil burners, power gas burners, industrial light oil burners. A live exhibit will show a dual fuel burner in operation.

SYNCHROMATIC CORP., 1141 10th St., Watertown, Wis.—Booth 29

In attendance: H. M. Stillman, George Day, Leonard Troeller.

Exhibiting: "Hi-cap" oil or gas furnace, "Hi-

cap" suspended unit, "Lo Boy" oil fired, "Lo boy" gas fired, oil or gas "Lo boy" oil or gas counterflow.

TACO HEATERS, INC., 1160 Cranston St., Cranston 9, R. I.—Booth 518

In attendance: J. Balter, R. H. Chaffee, W. P. Klein, W. T. Robinson, H. E. Lucas, E. Polenz, C. Sliney, W. Sliney, H. Lisowski, W. P. Haney, E. W. Leonard, R. Sumpt, E. J. Conley, R. J. Tesar, W. E. Johnson.

Exhibiting: Heat exchangers, chillers, water circulating pumps and hot water heating specialties. New universal "Flocheck" suitable for angle or horizontal application will be featured.

TANN CORP.—see CONGRESS DRIVES DIV.

TECUMSEH PRODUCTS CO., Tecumseh, Mich.—Booth 62

In attendance: M. A. Shantz, H. L. Bargeman, R. B. Grisbrook, L. J. Freitas, F. F. Kennedy, J. E. Parker, G. I. Boone, G. B. Boone, J. A. Swain, R. T. Smith, J. E. Smith, R. C. Hiatt, L. W. Larsen, F. G. Purcell, C. M. Brown, D. J. Bowen, P. G. Colgrove, H. M. Kelso, A. S. Russell, W. W. Higham, E. D. Halsey, T. S. Pendergast.

Exhibiting: Air and air-water cooled compressors for year around central station air conditioning, 1 to 3 hp; ¾ hp plastic operating compressor for room coolers; new 2 and 3 hp remote commercial condensing units. The 1, 1½, 2 and 3 hp compressors for air cooled applications will be featured.

TEMCO, INC., 4104 Park Ave., Nashville 9, Tenn.—Booth 814

In attendance: William H. Ferriss, Cecil B. Oakley, Lee W. Rasch, F. Donald Hart.

Exhibiting: Gas fired central heating and air conditioning equipment (Hi-boy's, lo-boy's, gravity furnaces, horizontals and counter-flow furnaces); air conditioning units (2 to 5 ton capacity); gas wall heaters; gas floor furnaces; gas space heaters.

THATCHER FURNACE CO., Center St., Garwood, N. J.—Booth 508

In attendance: R. Cook, M. Beard, S. Leigh, I. Vail, G. Fleming, R. Evers, J. Sheehan.

Exhibiting: Oil and gas fired units and summer cooling equipment, featuring "double duty" oil or gas fired winter air conditioner.

THERMOBLOC DIV., PRAT-DANIEL CORP., 2 Meadow St., 230 Norwalk, Conn.—Booth C-166

In attendance: Edward P. Pearsall, Richard F. Sharon, Conrad H. Pinches, Joseph Kirkbride, Harold Parent.

Exhibiting: "Thermobloc" direct fired warm air heaters, "Aerotec Deep Heat" generator (a new product), "Panelbloc" (formerly known as "Panelroy") radiant gas fired infra-red heaters.

THERM-O-WHEEL, INC., 1040 B. 22 St., Far Rockaway, N. Y.—Booth S-102

In attendance: Nathan Wolpov, Abraham Heckman, Harry N. Crowell.

Exhibiting: A demonstration of the application of the "Therm-O-Wheel" for heat recovery within the exposition building will be featured, and demonstrator models will be shown.

THRUSH & CO., H. A., W. 8th at Jefferson Sts., Peru, Ind.—Booth C-63

In attendance: Geo. H. Fox, E. D. Noland, G. O. Johnson, W. J. Johnson, L. D. Grose, T. E. Fahy, R. E. Clegg.

Exhibiting: Hot water heating specialties, featuring new improved circulator, tank drain, air eliminator, manifolds, and balancing valves.

TIMKEN SILENT AUTOMATIC DIV., 209

Washington St., Jackson, Mich.—Booths 621 and 625

In attendance: S. T. Ramey, M. F. Robbins, J. J. Morro, C. E. Watres, W. J. Chappell, J. E. Fahl, F. M. Jordan, R. E. Leobell.

Exhibiting: Gas fired home heating equipment; oil fired home heating equipment; and air conditioning equipment.

TITUS, INC., Box 810, Waterloo, Iowa—Booth 747

In attendance: J. L. Canady, J. S. Smith, G. F. Bertrand.

Exhibiting: Perimeter diffusers (steel and aluminum); door grilles (standard and new "Thin-Core"); new ceiling and high sidewall grilles, new baseboard return grilles. Perimeter diffusers with new built-in damper, new "Thin-Core" door grilles, new ceiling and sidewall grilles and new baseboard return grilles will be featured.

TITUS MFG. CORP., Box 810, Waterloo, Iowa—Booth 750

In attendance: Donald I. Titus, Robert W. Titus, J. D. Davis, E. F. Averill, Richard Schermer, Marlin Cook, Bob Wirth.

Exhibiting: Complete line of "Airfoil" grilles demonstrating performance under varying conditions, and illustrating new ideas on design of air conditioning outlets. New safety approved line of gymnasium grilles, especially adapted for school use, and new all aluminum design with color selection and new snap-in design will be featured.

TORRINGTON MFG. CO., THE, Torrington, Conn.—Booth 67

In attendance: D. B. Robinson, R. M. Gordon, C. A. Hathaway, W. E. Cashen, A. C. Doty Jr., T. J. Oliver, W. G. Boales, S. E. Shea, Brad. Hultgren, L. C. Lindstrom, F. Hohmeister, J. W. Fry, L. A. Hennequin, A. N. Casadei, C. Crawford, M. A. Heeren, P. West, M. B. Hunting.

Exhibiting: "Airotor" (centrifugal) blower wheels and "Airstocratic" propeller fan blades.

TRANE CO., THE, LaCrosse, Wis.—Booths 902, 906, 910 and 918

In attendance: M. L. Hoglund, C. L. Ringquist, Ralph E. Lee, Richard Lubinsky, Lew Fuller, Charles Conner, Vernon Bushnell, James Whalen, William Barnard, Ted Ernst, Paul Hughes, Kenneth Ulsch, Werner Wassmandorf, William Kahler, Harry Case, Gerry Hicke, Corb Rooks, Al Menke, E. A. Cline, Thomas Hancock, Fritz Sontag.

Exhibiting: Complete product line featuring "CenTraVac," reciprocating compressor, "Uni-Trane" and "Custom Air" system, "Climate Changer," fans, coils, baseboard, convactor and wall-fin. A large size "CenTraVac," "Climate Changer," "UniTrane," fans, "Delta-Flo" fin and coils will be featured.

TRION, INC., 1000 Island Ave., McKees Rocks, Pa.—Booths 76-78

In attendance: E. W. Meyers, Jr., C. S. Stephens, G. F. Landgraf, W. R. Murdock, C. Pollock, H. Washack, N. R. Trout, R. W. McGuire, G. E. Karsnak, R. E. Sweitzer.

Exhibiting: "Dill" dust spot tester, field assembled electronic air cleaner, customized packaged unit electronic air cleaners, home unit electronic air cleaner, oil mist precipitator, mechanical traveling oil curtain unit, mechanical self washer unit, mechanical panel unit. Home electronic air cleaner and mechanical air filters will be featured.

TUTTLE & BAILEY, INC., New Britain, Conn.—Booth 31

In attendance: R. D. Tutt, W. I. Lipski, W. L. Batchelor, R. S. Rickabaugh, F. W. Adams, H. R. Hart.

Exhibiting: Grilles; registers; ceiling diffusers; air distribution accessories; high pressure air distribution equipment; baseboard heating panels; convectors. High pressure sidewall mixing plenum units, high pressure single-

and double-duct ceiling diffusers and baseboard heating panels will be featured.

XXTH CENTURY HEATING AND VENTILATING CO., 96 Ira Ave., Akron 1, Ohio—Booth 207

In attendance: John Garver Kerch, R. K. Long, Walter Stashkiw.

Exhibiting: Oil and gas fired gravity and forced air furnaces.

TYPHOON AIR CONDITIONING CO., INC., 505 Carroll St., Brooklyn 15, N. Y.—Booth 650

In attendance: Don V. Petrone, Mark E. Mooney, A. G. Masiello, Peter T. Wotton, Robert A. Allen.

Exhibiting: Commercial packaged air conditioning units, 2 to 30 hp; air cooled conversion units for existing warm air systems, 2, 3, and 5 hp. "Convert-to-Cool" conversion unit for installation with existing warm air systems is generally new, but has been shown in the 3 hp size. The 2 and 5 hp sizes, also air cooled, have never been shown. The 30 hp packaged air conditioning unit is new.

UNION ASBESTOS AND RUBBER CO., 332 S. Michigan Ave., Chicago 4, Ill.—Booths C-54, C-56, C-58

In attendance: Edwin E. Hokin, Chester S. Stackpole, Peter B. Colwin, W. K. Smith, R. M. Anderson, Philip E. Bracht, Duane N. Quamme.

Exhibiting: Heating and packaged air conditioning equipment for stores, offices, and industry; chilled water generators and "Dual-Vectors" for combination heating and cooling in homes, offices, motels, hotels and institutions; convectors; unit heaters; baseboard; and wallboard radiation for wet heat application in residential, commercial, and industrial buildings. "Dual-Vector" and water chiller, combination hot water convector for heating and chilled water conditioner will be featured.

UNION ELECTRIC & MFG. CO., 1057 Summit Ave., Jersey City 7, N. J.—Booth 136

In attendance: Charles Rapiport, George Eulo, Sidney S. Blackman.

Exhibiting: Oil burner ignition transformers.

UNITED STATES AIR CONDITIONING CORP., Como Ave. S.E. at 33rd, Minneapolis 14, Minn.—Booths 58-59

In attendance: D. E. Feinberg, John E. Craig, L. P. Hanson, Wm. Moisselle, R. D. McLain, M. A. Stuart, E. R. Tanner, R. I. Tanner, W. W. Malloy.

Exhibiting: Dual-circuited refrigerated "Kooler-air" house ventilating sets, window type room air conditioner (1955 model), year 'round heating and cooling unit, "Kooler-air" air cooled condensing unit and accessories, packaged air conditioner (1955 model), "Modu-air". New equipment and redesigned models will be featured.

UNITED STATES RADIATOR CORP., 439 Penobscot Bldg., Detroit 26, Mich.—Booth 8

In attendance: J. Roy Knox, R. R. Harnetiaux, F. E. Schmuck, H. M. Gibb.

Exhibiting: Complete line of new window units which may be mounted either flush inside or flush outside and have an overall depth of only 21 in. up to the 1½ ton size; packaged coolers, 2 - 15 tons; packaged units with built-in evaporative condenser, 3 - 50 tons; companion type warm air units.

UNITED STATES RADIATOR CORP.—also see PACIFIC STEEL BOILER DIV.

UNITED STATES REGISTER CO., 344 E. Burnham St., Battle Creek, Mich.—Booth 733

In attendance: Harry G. Hollman, Everett P. Kromdyk, A. A. Stagg, Charles J. Pearson.

Exhibiting: Air conditioning registers, grilles and accessories; dampers; diffusers. Various new styles and innovations in air conditioning registers and grilles will be featured.

UNITED STATES RUBBER CO., 1230 Avenue of the Americas, New York 20, N. Y.—Booth S-40

In attendance: C. W. Higbee, H. H. Weber, R. H. Turner, H. A. Johnson, R. C. Cassidy, C. C. Moore, H. J. Cluver.

Exhibiting: "Uskon" electrical panels, 1/16 in. thick, which can be cemented to ceiling like wallpaper. Panel consists of a sheet of conductive rubber that is the heating unit, sandwiched between layers of thin plastic and aluminum foil. Radiant heating for an entire house or a single room is possible.

UNIVERSAL DIFFUSER CORP., 1360 Garrison Ave., Bronx, New York 59, N. Y.—Booth 439

In attendance: Charles Davies, H. E. Gross, B. A. Kane, and others.

Exhibiting: "Flexiflo" circular adjustable air diffusers, and featuring "Flexiflo" adjustable square and rectangular air diffusers.

U. S. ELECTRICAL MOTORS, INC., 200 E. Slauson Ave., Los Angeles 54, Calif.—Booth C-162

In attendance: H. J. Coulombe, Bud Griffin, John Ash, Ray Cusato, Jim Devine, Morgan Glavin, Walt Johnson, Bob Lehman, John Tynas, Bob Werst.

Exhibiting: Industrial electrical motors—"Uniclosed" motor for standard needs; "Vari-drive" motor for variable speeds; "Synchro-gear" motor for slow speed, high torque; totally-enclosed motors for dusty and dirty locations; and explosion-proof motor for hazardous locations. New horizontal open and enclosed motor line conforming to the revised NEMA standards will be featured.

U. S. MACHINE DIV.—see STEWART-WARNER CORP.

UTILITY APPLIANCE CORP., 4851 Alameda St., Los Angeles 58, Calif.—Booth 635

UTILITY FAN CORP., 911 E. 59th St., Los Angeles 1, Calif.—Booth 346

VAPOR HEATING CORP., 80 E. Jackson Blvd., Chicago 4, Ill.—Booth S-28

Exhibiting: Automatic "Vapor-Clarkson" steam generator; "Waikiki" space heater; "3-Way" heater for house trailers, supplying hot water for kitchen needs, warm air space heater and hot water radiator heat; relays; mercury contact thermostat; "Upgrader" hot hydraulic steam cleaner; railroad refrigerator car heater.

V & E PRODUCTS INC., Schuylkill Haven, Pa.—Booth 821

In attendance: George Valentine, J. H. Eubanks, Lionel L. Jacobs, E. R. Glassey, J. W. Combe, Earl Fountain, Joseph Casey, J. A. Blackburn, Walter C. Moriarty, Edward R. Galante, Bruce L. Jacobs.

Exhibiting: Steel water tube boilers for all fuels. Gas fired complete packaged boiler burner unit and anthracite stoker fired boiler burner unit will be featured.

VELAN ENGINEERING LTD. 6585 Jeanne Mance St., Montreal, Que., Canada—Booth S-90

VELOCITY POWER TOOL CO., 201 N. Brad-dock Ave., Pittsburgh 8, Pa.—Booth 328

In attendance: William G. Kulesz, Raymond E. Ginn, Jr., John M. Henry, John M. McCall, Earle A. Widemann.

Exhibiting: Air-acetylene and air-propane "Torch-O-Matics"; power driver; portable pipe threader.

VIBRATION ELIMINATOR CO., THE, 10-28 47th Ave., Long Island City 1, N. Y.—Booth C-42

VIBRATION MOUNTINGS, INC., 76-19 Queens Blvd. Elmhurst 73, N. Y.—Booth S-24

VIKING AIR CONDITIONING DIV., THE NATIONAL RADIATOR CO., 5601 Walworth Ave., Cleveland 2, Ohio—Booth 402

In attendance: Bob Main, Jack Green, Dick Gang, Frank Gibbons, Dave Ahern, Jack Casman, Woody Faison, Tom McIntyre, Mack Mackenzie, Bill Siebenthaler.

Exhibiting: Furnace blower assemblies, universal blower assemblies, duct blowers, window and attic fans, and humidifier.

VULCAN RADIATOR CO., Capitol Ave., Hartford, Conn.—Booth 409

In attendance: Gordon Bennett, Milton Lundgren, Joseph Pierce, John H. Ehn, Jack Ritz.

Exhibiting: "Trimline" baseboard radiation, "Linovector" commercial radiation, "Trim-line" baseboard cooling, "Air-Trim" base-board diffusers. Baseboard cooling and base-board diffusers will be featured.

WAGNER ELECTRIC CORP., 6400 Plymouth Ave., St. Louis 14, Mo.—Booth 834

In attendance: J. H. Devor, H. N. Felton, G. W. Brown, L. C. Dobrunz, M. H. Nelson, A. C. Allen, L. A. Murphy, R. E. Bryant, M. B. Atkinson, J. B. Holston, M. D. Paul, S. Snyder, F. B. Minx, G. L. Neely, P. M. Postlethwaite, W. E. Prewitt, R. K. McLuen, R. Larson.

Exhibiting: Electric motors. Several new designs will be featured.

WALKER MFG. & SALES CORP., 1711 Penn St., St. Joseph 1, Mo.—Booth 405

In attendance: Andrew H. Ziph, Raymond Denning.

Exhibiting: Automatic draft regulators for space heaters, incinerators, trailers, domestic and industrial applications; draft boosters; chimney and vent caps; roof ventilators. Incinerator draft controls and trailer controls, draft booster and new domestic draft controls will be shown for the first time.

WALLACE CO., WILLIAM—see METAL-BESTOS DIV.

WALTON LABORATORIES, INC., 1186 Grove Ave., Irvington, N. J.—Booth C-13

In attendance: Wm. Feldermann, John B. Feldermann, J. R. Lewis, Herbert Putzbach.

Exhibiting: Complete line of "Cold Steam" humidifiers for the home, office and industry, featuring newly designed unit for warm air heat which provides "positive humidification without the use of evaporator plates, jets, nozzles, or other forms of surface evaporation."

WARREN ENGINEERING CO., Broadway, N. J.—Booth S-118

WATERFILM BOILERS, INC., 36-40 New York Ave., Jersey City 7, N. J.—Booth C-125

In attendance: Ken Hanson, Vic Butler, John Deane, Bill Gray, Al Masche.

Exhibiting: Oil and gas fired packaged units, hot water heating units, completely wired and set up; baseboard radiation with large volume of water "to insure lasting heat, and with no fins to clog with dust." will be featured.

WATERMAN-WATERBURY CO., THE, 1121 Jackson St., N.E., Minneapolis 13, Minn.—Booth 114

In attendance: E. M. Delaney, Otto Griefnow, Stuart Smith, Ira Metcalf, Stan Halpurn, F. W. Legler.

Exhibiting: Warm air furnaces, and featuring "Comfortrol" zone distribution system.

WATTS REGULATOR CO., 10 Embankment St., Lawrence, Mass.—Booth 232

In attendance: Ernest Wante, Norman D. Vaughan, C. G. Noeller, W. M. Dillon, V. R. Bitzer, A. J. Harvey, Jr., G. B. Horne.

Exhibiting: Protection and control specialties for heating and plumbing systems. New line of automatic reseating temperature and pressure relief valves, ASME rated water pressure safety relief valves and boiler water feeders, as well as other hot water heating specialties, will be featured.

WAYNE HOME EQUIPMENT CO., INC., 801 Glasgow Ave., Fort Wayne 4, Ind.—Booth C-155

In attendance: N. G. Berghoff, B. G. Duer, C. V. Copeland, J. E. Nace, W. I. Chapel, J. J. Thurston, J. M. Messinger, Harold Kupferman.

Exhibiting: Oil and gas heating and cooling equipment.

WEATHERTRON DEPT., GENERAL ELECTRIC CO.—see GENERAL ELECTRIC CO., WEATHERTRON DEPT.

WEBSTER ELECTRIC CO., 1900 Clark St., Racine, Wis.—Booth 7

In attendance: P. G. Crewe, D. J. Munroe, B. T. Wiechers, L. S. Ehrich, Jr., L. E. Woolf, W. J. Wenzell, H. B. Hastings, Jr., F. Tuttle, G. Brinkerhoff, W. E. Dent.

Exhibiting: Fuel units, ignition transformers, "Delaytrol."

WEBSTER & CO., WARREN, 17th & Federal Sts., Camden 5, N. J.—Booths 414 and 418

In attendance: A. Richard Webster, Theodore L. Webster, D. F. Bennett, N. W. Mac-Nichol, B. F. Lerch, Harold F. Marshall, L. H. Plum, C. J. Kern, D. E. Morgan, J. E. Tolan.

Exhibiting: New developments in steam specialties, heating controls, radiation and hot water heating equipment.

WEIL-MCLAIN CO., Michigan City, Ind.—Booth 432

In attendance: E. R. Westphal, M. E. Mitchell, R. M. Stockwell, P. Stockwell, N. Westphal, Bill Black.

Exhibiting: Heavy duty oil fired boiler, base-board, gas boiler, package oil boiler. "No. 9" baseboard will be shown for the first time.

WESTINGHOUSE ELECTRIC CORP., Gateway Center, Pittsburgh 30, Pa.—Booth 71

In attendance: Messrs. Miller, Delaney, Purdy, Danni, Nelson.

Exhibiting: Motors, gearmotors, thermostats, brazing electrodes.

WESTINGHOUSE ELECTRIC CORP., Gateway Center, Pittsburgh 30, Pa.—Booths 534-536-540-544

In attendance: Messrs. Cott, Thompson, Rogers, Justice.

Exhibiting: Air conditioning units and compressors, ventilating sets, "Silent Vane" fan, "Precipitron," industrial heater, air handling unit, "Speed Heaters" and coils.

WHEELCO INSTRUMENTS DIV.—see BARBER-COLMAN CO., WHEELCO INSTRUMENTS DIV.

WHITEHALL ENGINEERING CO., 1630 S. Michigan Ave. Chicago 16, Ill.—Booth C-60

In attendance: Ted Nemes, N. Weinstein.

Exhibiting: Mobile air conditioner; packaged air conditioners (2 hp through 15 hp); water chillers (1 hp through 5 hp); and "Dual-Vector" combination heating and cooling systems.

WHITE-RODGERS ELECTRIC CO., 1209 Cass Ave., St. Louis 6, Mo.—Booths 64 & 66

In attendance: L. F. Blough, R. A. Sherer, E.

Robinson, A. Petersen, E. Wechsler, E. Hartnett, H. Teasley, F. Crawford, W. Campbell, J. Powell, F. Ouwelen, R. Horton, P. McTeigue, P. McHugh, C. Moreng.

Exhibiting: Complete line of automatic controls for heating, refrigeration and air conditioning, including new thermostat for electric radiant heating, "Cushioned Power" solenoid gas valves, plug-in automatic gas pilot, and new air conditioning thermostat.

WILLIAMS DIV., EUREKA WILLIAMS CO. (DIV. OF HENNEY MOTOR CO., INC.), 1201 E. Bell St., Bloomington, Ill.—Booths 835-839

In attendance: R. C. Douglas, O. E. Nesmith, C. G. Branch, T. H. Green, C. H. MacFarland, M. P. Langdoc, D. F. Motz, F. O. Robison, H. C. Perry, J. H. Skaggs, H. H. Hackett, W. G. Gonzalez, V. A. Krouse, E. L. Dawkins, R. A. Davis, S. J. Dowling, V. E. Reed, H. H. Hurston, F. Brown, T. E. Schofield.

Exhibiting: "Oil-O-Matic" and "Gas-O-Matic" burners, complete furnace burner and boiler burner units, "Air-O-Matic" cooling units. A new low pressure oil burner will be publicly shown for the first time.

WINDMASTER CORP., P.O. Box 776, Columbus 16, Ohio—Booth C-57

In attendance: L. F. Cooper, Dan Lynch, Jack Figgins, R. W. Franks, Daniel Freedman, Morris Chapman, O. W. Dobson, Walter MacPherson, J. E. Halter, C. E. Murman, F. L. Davenport, Wm. H. Heagerty.

Exhibiting: Draft controls and "E-Z" Dapter" pipe stubs. Draft and the need for its control will be explained.

WING MFG. CO., L. J., 2300 N. Stiles St., Linden, N.J.—Booth 200

In attendance: H. S. Wheller, C. H. Smith, T. R. Peyrek, G. Nash, R. Teller, T. Harden, W. Matiez, E. Hubert, G. Spanos, B. Lyons, A. H. Hansen, R. N. Hosey, J. J. Hayes, A. W. Hein, D. J. Guerin, R. Purcell, R. Stebbins.

Exhibiting: Revolving unit heater, electric utility heater, fresh air supply heater, duct fan, forced draft blower, induced draft fan, auxiliary turbine. Draft inducer of newly improved design and designed for ease of installation will be featured.

WORTHINGTON CORP., Harrison, N.J.—Booths 948-950

In attendance: H. C. Ramsey, M. M. Lawler, E. R. Michel, F. J. Watt, W. F. Bishop, P. H. Shaw, J. C. Woodson, R. C. Hughes, J. P. McArthur, G. Tuckerman, M. Webb, P. O. Bancroft, C. V. Bengle, F. J. Blacker, A. F. Ward, P. A. McLeod, H. J. Newbauer.

Exhibiting: Year-round home air conditioner, room air conditioner, packaged conditioner, air cooled condensing unit, water cooled condensing unit, air cooled condenser, space heater, gas fired boiler, room air unit, compressor. Air cooled condensing unit, air cooled condenser, space heater, and gas fired boiler will be featured.

YATES AMERICAN MACHINE CO.—see LIPMAN REFRIGERATION DIV.

YORK CORP., York, Pa.—Booths 221-223-225-227

Exhibiting: New year 'round residential air conditioning units, one with gas fired heating system, another with an oil fired system, and another with the cooling part removed to illustrate flexibility of installation. A room air conditioner "that heats or cools at the turn of a dial" will be featured, and a new turbo water cooling system will be introduced. New "Yorkaire" fan window unit and induction unit for multi-story, multi-space buildings will also be shown.

YORK-SHIPLEY, INC., Jessop Pl. & P.R.R., York, Pa.—Booths S-50, S-89

In attendance: R. B. Snyder, Robert Fickes, Thom. Monk, John Saylor, C. L. Randall, J. Hauf, E. Estoclet, J. Johnson, George Frank, Roy Sanders, Al Raver, Lou Starner.

Exhibiting: "Aqua-ray" baseboard and "Radi-are;" "Steam-Pak" steam generator, rotary burners; warm air furnaces, oil and gas fired; boiler units, gas and oil fired, gas and oil fired conversion burners; and featuring new "Homeaire" air conditioners, gas and oil fired; new "Levittowner Tabletopper" boiler-burner unit.

YOUNG RADIATOR CO., 709 S. Marquette St., Racine, Wis.—Booth 931

In attendance: F. M. Young, J. J. Hilt, W. G. Schlichting, H. F. Brinen, P. J. Menden, G. R. Gibson, A. E. Slaasted, P. F. Brinen, Warren Brewer.

Exhibiting: "Roomaire" conditioners, "Perma-heat" baseboard convectors, unit heaters, convectors, and heating and cooling coils. The first two products will be featured.

YOUNG REGULATOR CO., 5209 Euclid Ave., Cleveland 3, Ohio.—Booth 801

In attendance: E. O. Young, W. J. Zimmer, George F. Bertrand, Barton D. Wood.

Exhibiting: Surface, flush cup and concealed damper regulators; adjustable cover concealed regulator for use in acoustical ceilings or walls; convector regulator for operating damper hinged on back of an enclosure; pressure relief damper; butterfly damper for double duct systems; remote controls, air split regulators, and accessories.

ZATKO METAL PRODUCTS CO., 20850 St. Clair Ave., Euclid 17, Ohio.—Booth S-15

In attendance: Lester T. Zatzko, John L. Menart, S. F. Spirakus.

Exhibiting: Stamped steel one-piece pulleys and fractional power v-belts.

ZONOLITE CO., "Z" CRETE DIV., 135 S. LaSalle St., Chicago 3, Ill.—Booth 118

In attendance: L. D. Winkler, M. Phillips, H. A. Dixon.

Exhibiting: Underground pipe insulation.

Advisory Committee for the Exposition

Representation on the advisory committee of the Exposition is shared by the ASHAE — sponsoring society — and a number of engineering societies and trade associations in related fields. L. N. Hunter, president of the ASHAE, is chairman of the group. Other members representing functional and territorial interests of the Society are: J. E. Haines, first vice president, ASHAE; E. R. Queer, treasurer, ASHAE; P. B. Gordon, member of the Council; R. S. Dill, chairman, Committee on Research; M. F. Blankin and H. P. Gant, past presidents; L. M. Church, president, Philadelphia chapter; E. H. Taze, president, Baltimore chapter; R. L. Stinard, president, New York chapter; H. M. Patrick, president, North Jersey chapter; E. C. Hach, president, Pittsburgh chapter; J. W. McElgin, general chairman, 61st annual meeting, and C. S. Leopold.

Representatives of the cooperating groups are the

following committeemen: William B. Watterson, president, Air Filter Institute; E. H. Eaker, president, American Gas Association; Scott Turner, president, American Institute of Consulting Engineers; Arthur J. Hess, recently president of the American Society of Refrigerating Engineers; F. W. Earnest, Jr., president, Anthracite Institute; A. A. Potter, president, Bituminous Coal Research, Inc.; J. DeWitt Morrow, president, Heating, Piping & Air Conditioning Contractors National Association; R. E. Ferry, general manager, Institute of Boiler and Radiator Manufacturers; Charles M. Gray, manager, Insulation Board Institute; Robert W. Nelson, president, National Association of Fan Manufacturers; C. B. Phillips, recently president of the National Warm Air Heating and Air Conditioning Association; Paul K. Addams, president, Oil-Heat Institute of America; R. A. Locke, president, Steel Boiler Institute, Inc.; and L. C. Dubs, president, Stoker Manufacturers Association.

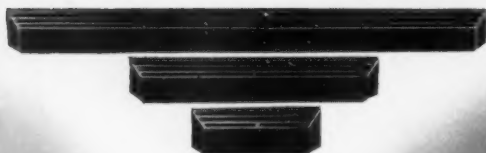


Only THE WORLD'S
MOST MODERN
HEATING and COOLING
GRILLES HAVE THIS
CLAIM OF
Performance Perfection

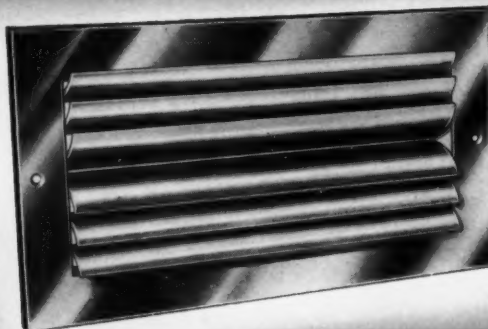
designed by **TITUS** *Inc.*

TITUS

Perimeter Diffusers



No. 200 Sidewall and Ceiling Grille



SPECIFICATIONS

Model No.	Open Size	Width	Height	Depth	Free Area	Approx. Ship. Wt.
50	2 1/4" x 12"	17"	4"	2 1/4"	19"	2 lbs.
100	2 1/4" x 12"	30"	4"	2 1/4"	33"	3 1/2 lbs.
150	2-2 1/4" x 12"	60"	4"	2 1/4"	62"	7 lbs.

FEATURES

1. For Heating and Cooling
2. Baffles — give 180° Air Diffusion.
3. New Built-in Damper with Set Lock.
4. New — more attractive metallic hammer-tone finish.
5. Forces cool air to higher levels.
6. One boot size for all models.

PERFORMANCE

Air directed over outside wall stopping drafts and wall chill in winter. Uniform temperatures throughout room. Cool air directed to higher room levels in summer, not directly on occupants or floor. Baffle design eliminates low level stratification and makes possible an improved low volume spread for heating. Eliminates stagnation areas in occupied zones. Rooms can be cooled or heated to customers satisfaction.

APPLICATION

For heating or cooling in either residential or commercial structures. Brings superior diffusion performance to any forced air system in any type structure or installation.

MODELS

- No. 50 — 17" length for use in areas not requiring large volume air delivery.
- No. 100 — 30" length. For normal size rooms.
- No. 150 — 60" length. Consists of No. 100 diffusers joined with clip for coverage of large walled area.

SALES AIDS AVAILABLE

- Newspaper mats.
- New Model 50 Window and Counter Display.
- New complete Catalog with Engineering Data.
- New Model 100 Window and Counter Display.

SPECIFICATIONS

FRAME	20 gauge cold rolled steel
BORDER	1-1/4" beveled edge
LOUVERS	Solid section extruded aluminum
SCREW HOLES	Standard countersunk
FINISH	Beige metallic hammer-tone

FEATURES

1. New curved design, solid section louver.
2. Louvers have 100% adjustability.
3. Choice of over 200 standard sizes.
4. Key operated damper.
5. 1-2-3 or 4 way diffusion.
6. Special designs always available.

PERFORMANCE

Handles summer air conditioning or winter heating air patterns with equal efficiency. Air may be directed along ceiling or forced down into room at angle desired.

APPLICATION

Overhead forced air systems. . . High sidewall installations. Replacement of outmoded warm air registers when cooling is added. . . Replacement of outlets located in problem areas to correct chilling or drafts. . . Overhead air conditioning where steam or hot water are presently installed. . . Ideal for locating over large window areas. Will diffuse air down over window surface keeping window clear and blanketing exposed surfaces.

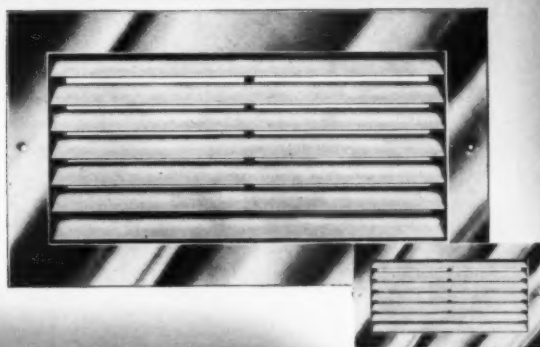
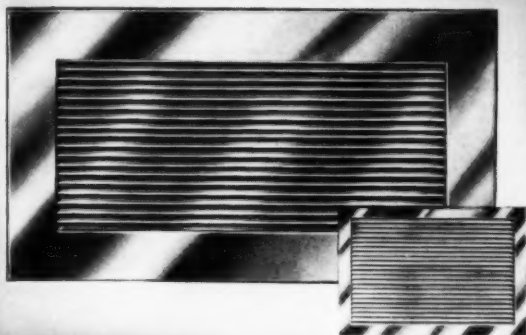
MODELS

- L-201 — Directs air one way only. Louvers run parallel to long dimension.
 - L-202 — Directs air two ways simultaneously. Louvers run parallel to long dimension but with split deflection.
 - S-201 — Directs air one way only. Louvers run parallel to short dimension.
 - S-202 — Directs air two ways simultaneously. Louvers run parallel to short dimension but with split deflection.
- Note: 3 or 4 way diffusion available. Write factory.

SALES AIDS AVAILABLE

- Newspaper ads.
- Complete new catalog with selection data.
- New window and counter display.

• **Door Grilles . . Models T-800 (thin core) & T-700** • **Return Air Grilles . . . Models 1001BB & 1001**



SPECIFICATIONS

FRAME	20 gauge rolled steel
BORDER	1-1/4" beveled edge
LOUVERS	V-shaped. Solid section
LOUVER DEPTH	1/2" - spaced 7/32" centers
SCREW HOLES	Standard countersunk
FINISH	Beige metallic hammer-tone

FEATURES

1. No see-thru.
2. Louvers' close spacing adds strength.
3. Grilles available in 2 types with frame or louvers only. Choice of 2 type frames.
4. Louver sections available in sheets 36" x 48" for cutting to any desired size.
5. May be installed with grille on each side of door.
6. Center supports every 2" for extra strength.

PERFORMANCE

New streamlined appearance. Made to fit thinnest sections, even as thin as 3/8" plywood doors. Yet so rugged it will take all the abuse a door grille must absorb. Center supports are installed every 2" to add more rigidity per square inch. Grille offers new beauty and appearance.

APPLICATION

Use as door grille in any type installation. Handles requirements of either heating or cooling. Adaptable also as return air grille in perimeter heating or cooling system. May be used to ventilate furnace rooms. Fits doors and walls of exceeding thinness.

MODELS

T-800A — T-800B — T-800 standard (no frame).
T-800A — Made with channel frame.
T-800B — Made with 1-1/4" beveled edge border.
T-800 — Standard made with no frame.
Auxiliary frame available for use with T-800B.
T-700A — using channel frame and T-700B with 1-1/4" beveled edge border. Special designs and sizes available. Write factory for details.

SALES AIDS AVAILABLE

- New catalog.
- New window and counter display.

SPECIFICATIONS

FRAME	20 gauge cold rolled steel. One piece.
BORDER	1-1/4" with 7/8" beveled edge baseboard frame.
LOUVERS	Curved, hemmed 20 gauge cold rolled steel spaced on 3/4" centers. Louver depth one inch.
SCREW HOLES	Countersunk for No. 8 screws. Spaced 1/2" on center from outer edge of border.
FINISH	Beige metallic hammer-tone.

FEATURES

Larger free area per square inch of surface. Smooth modern appearance. Sturdiest construction to handle floor level abuse.
L-1001BB blades parallel to long dimension with 7/8" baseboard frame.
S-1001BB blades parallel to short dimension with 7/8" baseboard frame.
L-1001 blades parallel to long dimension with standard 1-1/4" beveled edge border.
S-1001 blades parallel to short dimension with standard 1-1/4" beveled edge border.

PERFORMANCE

Handles return air without whistle or rattle. Larger free area per square inch.

APPLICATION

1001BB any baseboard return system. Mounts easily into baseboard. Screws furnished. Blend smoothly with baseboard lines.
1001 same as above except for sidewall installation.

MODELS

L-1001BB — S-1001BB. (BB denotes baseboard frame).
20 standard sizes. Made with either blades parallel to long or short dimension.
L-1001 — Same as above except with standard 1-1/4" beveled edge border.
S-1001 — Same as above except with standard 1-1/4" beveled edge border.
All sizes available. Write factory for special sizes.

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TITUS INCORPORATED • WATERLOO, IOWA

AMERICAN ARTISAN

JANUARY, 1955

Heat Pump — Northern Market Potential?

(Continued from page 102)

off the condenser — about 95 F — and being wasted under the present arrangement.

The well water from the condenser will be passed through three 30 gal uninsulated tanks in an enclosure or *warm box*. Under control of one of the room heating thermostats operating a damper, house air will be circulated through and warmed in that enclosure by the $\frac{1}{8}$ hp blower to maintain the desired room temperature. So equipped, summer power use may easily be doubled, depending on the relative humidity maintained. There is nothing new about this in heat pump systems, but with my interest chiefly in the winter heating problem it received no attention in the planning stage.

Dehumidification without cooling is important in a humid climate such as found in the Madison area and can readily be supplied by a heat pump.

Conclusions

Because the need for cooling is not compelling and also because of the high initial cost, the northern heat pump market obviously will be a quality market for some time to come. It seems logical to conclude that the people able and willing to pay the price will expect a high degree of comfort from the system as to heating, cooling, dehumidification and ventilation.

The heating system when complete requires individual attention to the following items:

- 1) Heat source well, pump and means of water disposal
- 2) Means for water treatment
- 3) Insulated storage tanks
- 4) Air coil or coils and circulating pumps
- 5) One or two blowers, and an automatic damper
- 6) Ductwork and outlets

TABLE 4—MONTHLY VARIATION in power in kw/hr used per degree day

	Collection & Storage		Distribution	
	65 F base	70 F base	65 F base	70 F base
October 1953	1.26	.90	.29	.21
November	1.03	.85	.25	.21
December	1.04	.93	.21	.19
January 1954	1.02	.91	.17	.15
February	1.03	.86	.23	.20
March	1.00	.87	.21	.18
April	1.14	.86	.29	.22
May	1.13	.81	.25	.18
June 1 to 11	1.26	.80	.29	.19
Oct. 1, 1953 to				
June 11, 1954	1.05	.88	.22	.19

Note: The power use per degree day on 65 F base must be used for comparison with other units or heating equipment, since that is the standard practice. However, with inside temperature controlled at 75 F, this usage on a 65 F base is not indicative of actual seasonal variations in efficiency. Computed on 70 F base degree-days, the above data corresponds fairly well with known variations in efficiency; i.e., the unit was operating to better advantage in May and June than it was in October and November.

7) Three room thermostats, an outdoor-reset thermostat system, a cooling thermostat for the tank and a humidistat.

8) Connecting water piping

9) Electrical wiring

Nearly all of this equipment could be standardized in design and selection for the average home. The item that must be checked carefully on each job is the adequacy of the heat source water, its collection and disposal.

Based upon an evaluation of the data obtained from the operation of my heat pump system and the comfort experienced, I believe I am safe in saying that a home owner who wants cooling of his complete house — if he can obtain well water around 50 F and has a suitable way to dispose of it — will find that the heat pump provides reliable, satisfactory and reasonably economical air conditioning during the entire year.

TABLE 5—AIR HANDLING DATA for Wisconsin heat pump test house

	Design Conditions		Actual*
	High Speed	Low Speed	High Speed
Heat loss at -20 F, Btuh	66,000		60,000
Cfm	1,850		1,700
Air duct temperature at maximum	105		
Air duct temperature at minimum		90	
Blower rpm	653	313	470
Fan tip speed fpm for $\frac{3}{4}$ in. pressure	2,560	1,230	1,850
Fan outlet velocity, fpm	1,460	1,000	1,340
Main duct velocity, fpm	615		
Branch duct velocity, fpm	up to 500		
Air filter velocity	220		
Air coil velocity	355		
Air outlets velocity	up to 300		
Return ducts velocity — main	about 380		
Return ducts velocity — branches	about 250		
Computed friction loss, in. of water33		

*Air rates computed from heat transfer rates and fan curves
Arrangement of equipment:
Return air to filter, air coil, blower, ducts, rooms

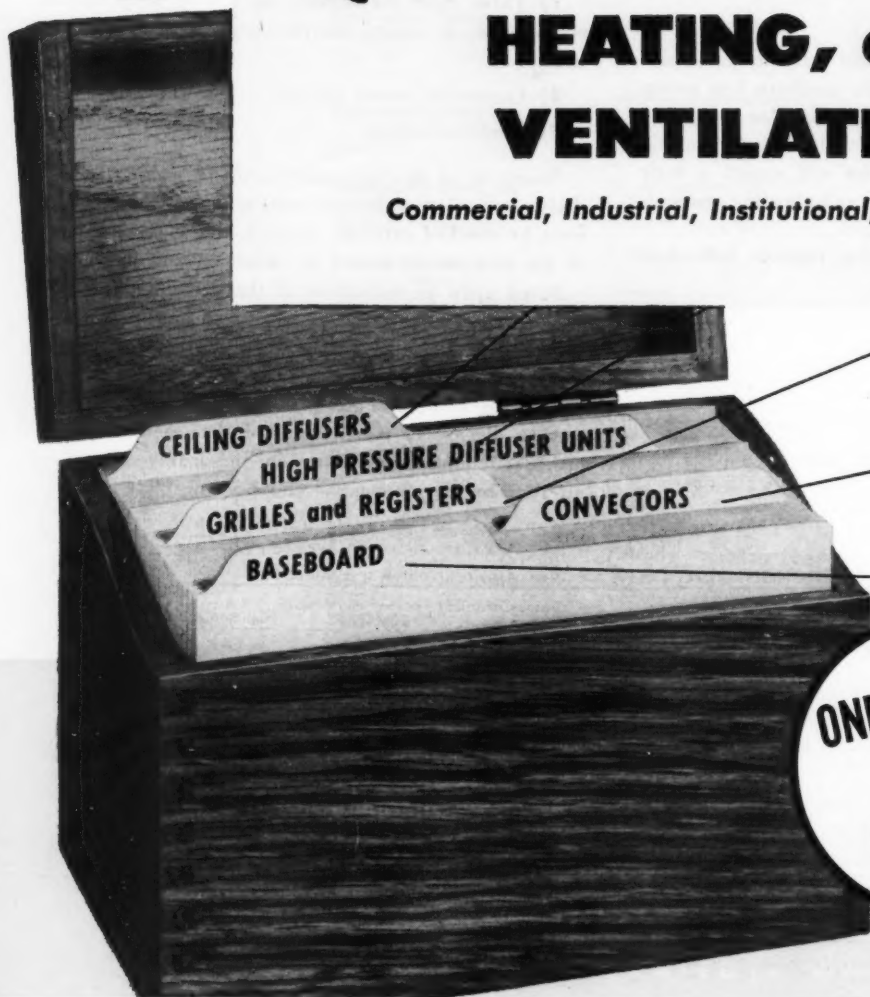
Engineered Products



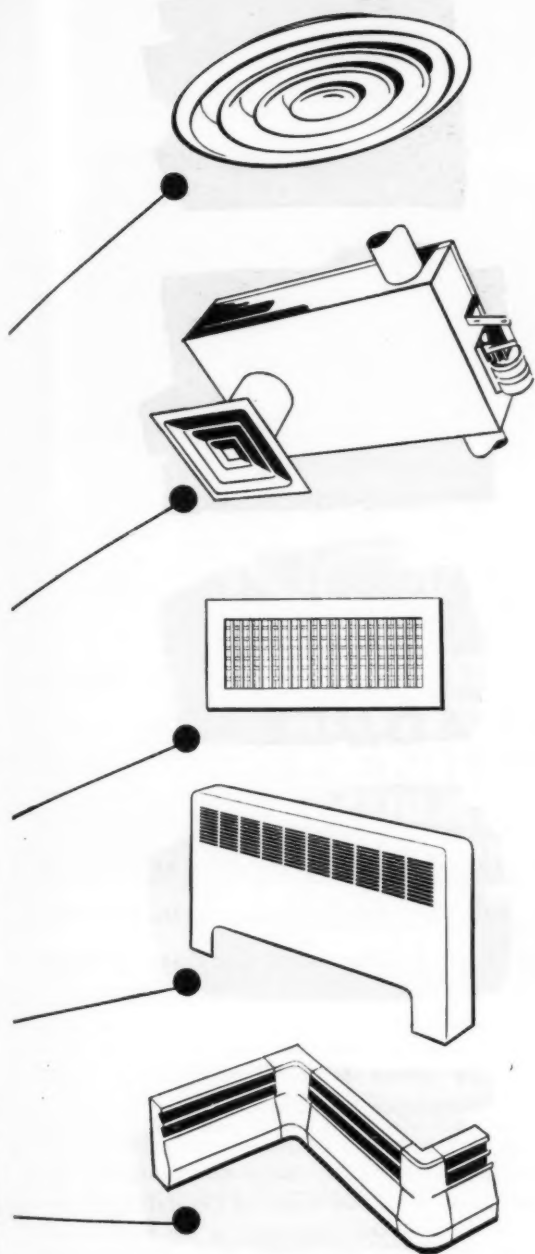
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IN THE SUMMER of 1864, Major General Philip H. Sheridan, acting under the orders of General Grant, began the latest of several campaigns in the Shenandoah Valley. His military opponent was a tough and crusty veteran of the Confederate army, Jubal A. Early.

Sheridan's immediate objective was not to be the destruction of Early's force. The movement was intended to destroy completely the food producing capacity of the valley — burn the barns, flour mills and smoke houses; destroy the crops and drive off the cattle and horses; and, in Grant's words, "carry out this work so completely that a crow flying across the valley will have to carry his own rations." History records the success of Sheridan's campaign, and the Shenandoah died as the last important source of food for Lee's army at Petersburg.

(This article continued on page 136)

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CORROSION RESISTANCE

GRADE	ENVIRONMENT	GRADE	ENVIRONMENT
Austenitic—All Comp. 70°F.	Acidulent—All Comp.	302	316
Austenitic—All Comp.	Neutral—150°F.	318	430
Austenitic—All Comp.	Alkaline—All Comp.	430	442
Austenitic—All Comp.	Alkaline—All Comp.	442	448
Austenitic—All Comp.	Alkaline—All Comp.	448	452
Austenitic—All Comp.	Alkaline—All Comp.	452	456
Austenitic—All Comp.	Alkaline—All Comp.	456	460
Austenitic—All Comp.	Alkaline—All Comp.	460	464
Austenitic—All Comp.	Alkaline—All Comp.	464	468
Austenitic—All Comp.	Alkaline—All Comp.	468	472
Austenitic—All Comp.	Alkaline—All Comp.	472	476
Austenitic—All Comp.	Alkaline—All Comp.	476	480
Austenitic—All Comp.	Alkaline—All Comp.	480	484
Austenitic—All Comp.	Alkaline—All Comp.	484	488
Austenitic—All Comp.	Alkaline—All Comp.	488	492
Austenitic—All Comp.	Alkaline—All Comp.	492	496
Austenitic—All Comp.	Alkaline—All Comp.	496	500
Austenitic—All Comp.	Alkaline—All Comp.	500	504
Austenitic—All Comp.	Alkaline—All Comp.	504	508
Austenitic—All Comp.	Alkaline—All Comp.	508	512
Austenitic—All Comp.	Alkaline—All Comp.	512	516
Austenitic—All Comp.	Alkaline—All Comp.	516	520
Austenitic—All Comp.	Alkaline—All Comp.	520	524
Austenitic—All Comp.	Alkaline—All Comp.	524	528
Austenitic—All Comp.	Alkaline—All Comp.	528	532
Austenitic—All Comp.	Alkaline—All Comp.	532	536
Austenitic—All Comp.	Alkaline—All Comp.	536	540
Austenitic—All Comp.	Alkaline—All Comp.	540	544
Austenitic—All Comp.	Alkaline—All Comp.	544	548
Austenitic—All Comp.	Alkaline—All Comp.	548	552
Austenitic—All Comp.	Alkaline—All Comp.	552	556
Austenitic—All Comp.	Alkaline—All Comp.	556	560
Austenitic—All Comp.	Alkaline—All Comp.	560	564
Austenitic—All Comp.	Alkaline—All Comp.	564	568
Austenitic—All Comp.	Alkaline—All Comp.	568	572
Austenitic—All Comp.	Alkaline—All Comp.	572	576
Austenitic—All Comp.	Alkaline—All Comp.	576	580
Austenitic—All Comp.	Alkaline—All Comp.	580	584
Austenitic—All Comp.	Alkaline—All Comp.	584	588
Austenitic—All Comp.	Alkaline—All Comp.	588	592
Austenitic—All Comp.	Alkaline—All Comp.	592	596
Austenitic—All Comp.	Alkaline—All Comp.	596	600
Austenitic—All Comp.	Alkaline—All Comp.	600	604
Austenitic—All Comp.	Alkaline—All Comp.	604	608
Austenitic—All Comp.	Alkaline—All Comp.	608	612
Austenitic—All Comp.	Alkaline—All Comp.	612	616
Austenitic—All Comp.	Alkaline—All Comp.	616	620
Austenitic—All Comp.	Alkaline—All Comp.	620	624
Austenitic—All Comp.	Alkaline—All Comp.	624	628
Austenitic—All Comp.	Alkaline—All Comp.	628	632
Austenitic—All Comp.	Alkaline—All Comp.	632	636
Austenitic—All Comp.	Alkaline—All Comp.	636	640
Austenitic—All Comp.	Alkaline—All Comp.	640	644
Austenitic—All Comp.	Alkaline—All Comp.	644	648
Austenitic—All Comp.	Alkaline—All Comp.	648	652
Austenitic—All Comp.	Alkaline—All Comp.	652	656
Austenitic—All Comp.	Alkaline—All Comp.	656	660
Austenitic—All Comp.	Alkaline—All Comp.	660	664
Austenitic—All Comp.	Alkaline—All Comp.	664	668
Austenitic—All Comp.	Alkaline—All Comp.	668	672
Austenitic—All Comp.	Alkaline—All Comp.	672	676
Austenitic—All Comp.	Alkaline—All Comp.	676	680
Austenitic—All Comp.	Alkaline—All Comp.	680	684
Austenitic—All Comp.	Alkaline—All Comp.	684	688
Austenitic—All Comp.	Alkaline—All Comp.	688	692
Austenitic—All Comp.	Alkaline—All Comp.	692	696
Austenitic—All Comp.	Alkaline—All Comp.	696	700
Austenitic—All Comp.	Alkaline—All Comp.	700	704
Austenitic—All Comp.	Alkaline—All Comp.	704	708
Austenitic—All Comp.	Alkaline—All Comp.	708	712
Austenitic—All Comp.	Alkaline—All Comp.	712	716
Austenitic—All Comp.	Alkaline—All Comp.	716	720
Austenitic—All Comp.	Alkaline—All Comp.	720	724
Austenitic—All Comp.	Alkaline—All Comp.	724	728
Austenitic—All Comp.	Alkaline—All Comp.	728	732
Austenitic—All Comp.	Alkaline—All Comp.	732	736
Austenitic—All Comp.	Alkaline—All Comp.	736	740
Austenitic—All Comp.	Alkaline—All Comp.	740	744
Austenitic—All Comp.	Alkaline—All Comp.	744	748
Austenitic—All Comp.	Alkaline—All Comp.	748	752
Austenitic—All Comp.	Alkaline—All Comp.	752	756
Austenitic—All Comp.	Alkaline—All Comp.	756	760
Austenitic—All Comp.	Alkaline—All Comp.	760	764
Austenitic—All Comp.	Alkaline—All Comp.	764	768
Austenitic—All Comp.	Alkaline—All Comp.	768	772
Austenitic—All Comp.	Alkaline—All Comp.	772	776
Austenitic—All Comp.	Alkaline—All Comp.	776	780
Austenitic—All Comp.	Alkaline—All Comp.	780	784
Austenitic—All Comp.	Alkaline—All Comp.	784	788
Austenitic—All Comp.	Alkaline—All Comp.	788	792
Austenitic—All Comp.	Alkaline—All Comp.	792	796
Austenitic—All Comp.	Alkaline—All Comp.	796	800
Austenitic—All Comp.	Alkaline—All Comp.	800	804
Austenitic—All Comp.	Alkaline—All Comp.	804	808
Austenitic—All Comp.	Alkaline—All Comp.	808	812
Austenitic—All Comp.	Alkaline—All Comp.	812	816
Austenitic—All Comp.	Alkaline—All Comp.	816	820
Austenitic—All Comp.	Alkaline—All Comp.	820	824
Austenitic—All Comp.	Alkaline—All Comp.	824	828
Austenitic—All Comp.	Alkaline—All Comp.	828	832
Austenitic—All Comp.	Alkaline—All Comp.	832	836
Austenitic—All Comp.	Alkaline—All Comp.	836	840
Austenitic—All Comp.	Alkaline—All Comp.	840	844
Austenitic—All Comp.	Alkaline—All Comp.	844	848
Austenitic—All Comp.	Alkaline—All Comp.	848	852
Austenitic—All Comp.	Alkaline—All Comp.	852	856
Austenitic—All Comp.	Alkaline—All Comp.	856	860
Austenitic—All Comp.	Alkaline—All Comp.	860	864
Austenitic—All Comp.	Alkaline—All Comp.	864	868
Austenitic—All Comp.	Alkaline—All Comp.	868	872
Austenitic—All Comp.	Alkaline—All Comp.	872	876
Austenitic—All Comp.	Alkaline—All Comp.	876	880
Austenitic—All Comp.	Alkaline—All Comp.	880	884
Austenitic—All Comp.	Alkaline—All Comp.	884	888
Austenitic—All Comp.	Alkaline—All Comp.	888	892
Austenitic—All Comp.	Alkaline—All Comp.	892	896
Austenitic—All Comp.	Alkaline—All Comp.	896	900
Austenitic—All Comp.	Alkaline—All Comp.	900	904
Austenitic—All Comp.	Alkaline—All Comp.	904	908
Austenitic—All Comp.	Alkaline—All Comp.	908	912
Austenitic—All Comp.	Alkaline—All Comp.	912	916
Austenitic—All Comp.	Alkaline—All Comp.	916	920
Austenitic—All Comp.	Alkaline—All Comp.	920	924
Austenitic—All Comp.	Alkaline—All Comp.	924	928
Austenitic—All Comp.	Alkaline—All Comp.	928	932
Austenitic—All Comp.	Alkaline—All Comp.	932	936
Austenitic—All Comp.	Alkaline—All Comp.	936	940
Austenitic—All Comp.	Alkaline—All Comp.	940	944
Austenitic—All Comp.	Alkaline—All Comp.	944	948
Austenitic—All Comp.	Alkaline—All Comp.	948	952
Austenitic—All Comp.	Alkaline—All Comp.	952	956
Austenitic—All Comp.	Alkaline—All Comp.	956	960
Austenitic—All Comp.	Alkaline—All Comp.	960	964
Austenitic—All Comp.	Alkaline—All Comp.	964	968
Austenitic—All Comp.	Alkaline—All Comp.	968	972
Austenitic—All Comp.	Alkaline—All Comp.	972	976
Austenitic—All Comp.	Alkaline—All Comp.	976	980
Austenitic—All Comp.	Alkaline—All Comp.	980	984
Austenitic—All Comp.	Alkaline—All Comp.	984	988
Austenitic—All Comp.	Alkaline—All Comp.	988	992
Austenitic—All Comp.	Alkaline—All Comp.	992	996
Austenitic—All Comp.	Alkaline—All Comp.	996	1000

RESISTANCE TO SCALING

TEMP. °F	GRADE	TEMP. °F	GRADE
1200	1	1000	5
1400	2	1200	6
1600	3	1400	7
1800	4	1600	8
		1800	9
		2000	10
		2200	11
		2400	12

MACHINABILITY

% OF A157 STEEL	GRADE
40	6
50	7
60	8
70	9
80	10
90	11
100	12

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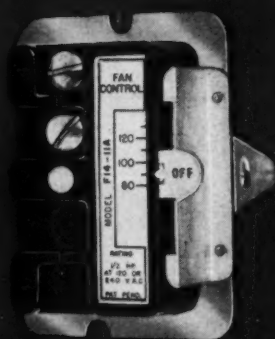
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NO THERMOSTAT CAN EXCEL **CAM-STAT'S**
RECORD OF FINE SERVICE

Philadelphia Dealers Build Warm Air Market

(Continued from page 132)



OVERHEAD AIR distribution system permits unlimited use of showroom space for varied display arrangements

Although there was no war, no Grant, no Sheridan, warm air heating in the Philadelphia market by the 1920's had withered to a point of comparison with the Shenandoah Valley of 1864. A furnace salesman coming to Philadelphia would be well advised, like the crow, to carry his own rations.

Various theories have been presented for the decline of warm air heating almost to the vanishing point in the Quaker City during this period. Undoubtedly all of them contained some truth. The most widely accepted reason was the progressive decline in quality of installations. Undersizing of furnaces, use of inadequate ducts for risers and cellar runs, absence of return duct systems, openings in the furnace casings for supply air which allowed coal dust and fly ash to be caught up in the warm air flow and settle liberal quantities of dust throughout the home were prevalent.

While numerous installations were sub-standard (especially in the light of present day knowledge) the fact remained that until after World War I considerably

more warm air heating systems were installed than any other form of central heating. In spite of their design handicaps these systems performed well for several generations and were accepted on a local level at least, as modern heating for the pre-World War I period. Also where lowest initial cost was not the controlling factor, installations of good sizing and design went into many Philadelphia homes giving complete satisfaction and the highest degree of cleanliness obtainable at the time. Quite a number of these old gravity systems are still in use, and with automatic firing added they now compare favorably with the most modern heating plant. Why then, may we inquire, was warm air so completely replaced in the years immediately following the end of World War I?

The post-World War I building boom in Philadelphia brought with it a considerably upgraded home. The size of the home was increased, the open porch became an enclosed sun room, electricity replaced gas for light, kitchen and bathroom walls were ceramic tile, the "built in"

(This article continued on page 153)



SCORES AGAIN

with the exclusive

METROFIN COIL UNIT

FOUND ONLY IN METROPAC AND NOWHERE ELSE!



METROFIN COIL UNIT is the greatest advance in hot water heating technology since METROPAC first introduced the air flow heating plant with built-in domestic hot water supply.

The entirely new amazing automatic METROFIN Coil Unit, an exclusive fin type radiator coil that surrounds the hot water tank, almost **DOUBLES** the recovery rate of the water tank with no extra load on the heater. METROFIN also balances the hot water heating to take care of long no-draw-off periods.

METROFIN Coil Unit puts METROPAC so far ahead of all others that there is no comparison in economy of operation and in economy of maintenance.

Ask us about the many other features of METROFIN, exclusive with METROPAC.

**In the CHALLENGER, too-
METROPAC scores again! . . .**

The METROPAC "CHALLENGER" is a completely new winter air conditioning unit designed to do a first class heating job for the small home. The CHALLENGER has every METROPAC heating feature including the new METROFIN Coil Unit — yes! every feature with no skipping anywhere.

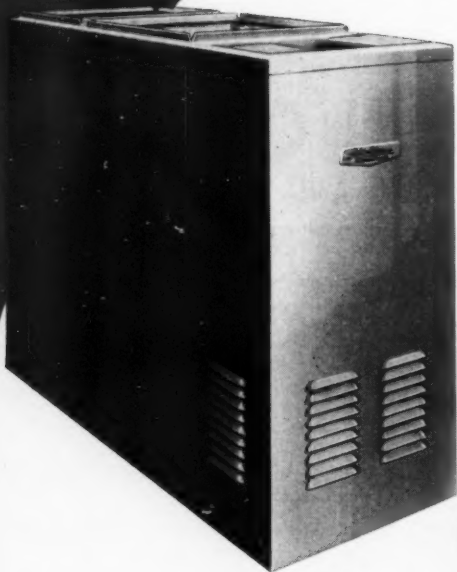
The METROPAC "CHALLENGER" in two capacities and the famous METROPAC "DE LUXE" in three capacities now cover the entire price range and solve every heating problem — in the most practical way.

See these 2 new METROPAC exclusives at our Show Booth or write us for new specification folder.

Circle 121-324 12th International Heating and Ventilating Exposition Jan. 24-25

METROMATIC MANUFACTURING COMPANY, EVERETT 49, MASS.

Borg-Warner Announces



New Airline Oil-Fired Furnaces

Extra heavy construction, yet exceptionally compact. Sizes from 80,000 to 165,000 Btu output at bonnet. Outstanding heat exchanger assembly, factory installed. Handsome vestibule for Lo-boy optional at modest extra cost.

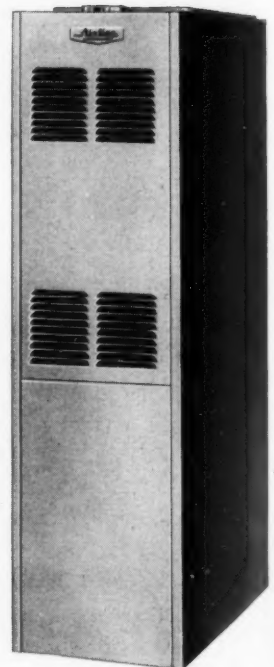
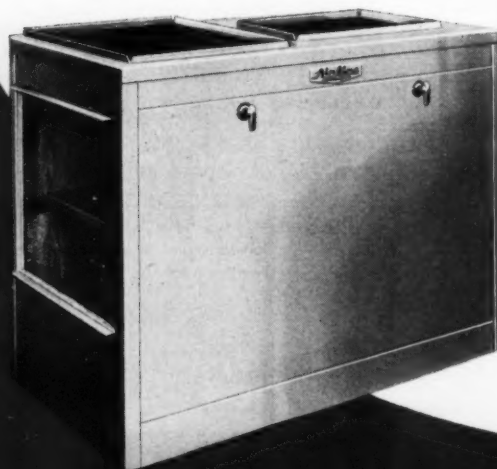


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New Airline Air Cooled Air Conditioners

Really good looking, exceptionally compact 2 and 3-ton models. Blower and blower compartment mounts on top. Also available are 2 and 3-ton water cooled models—both vertical and horizontal—including free-standing units.



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Hi-boy, Lo-boy, counterflow and suspended units. Sizes from 70,000 to 200,000 Btu input. Featuring high efficiency sectional heat exchanger and built-in down draft diverter. Fully enclosed controls. A.G.A. approved for all gases. Beautiful hammertone finish.



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you can
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and
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with!

If you're thinking BIG for the years ahead, start thinking right now about AIRLINE Heating and Air Conditioning. Airline—the name you'll be hearing a lot about—the line that's going places in a big, BIG way.

For whatever you want in heating and air conditioning, Airline has it for you. A full line of performance-proved gas and oil fired warm air furnaces. Conversion burners. Both air and water cooled air conditioners. Dust precipitators. Gas and electric water heaters. And every unit comfort-engineered throughout, and designed for easy, low-cost installation.

Outstanding features, too—features home owners want, features that sell! A realistic price structure that lets you meet—and beat!—competition, with full profit for you. Plus a sales and service policy that's bound to mean business for you.

So if you're fixing to go places in heating and air conditioning—GO and GROW with Airline. Get the full story now—mail that coupon today!

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COMPLETE LINE. Winter and summer air conditioners. Hi-boys, Lo-boys, counterflows, suspended units. All designed for quick, easy, low-cost installation.

OUTSTANDING FEATURES. Package units—factory assembled and tested. Compact, space-saving designs. Oil units readily and inexpensively converted to gas, with no loss of output. Hi-boy and counterflow units U.L. approved for close clearance.

QUALITY THROUGHOUT. In design, materials, con-

struction. Built for years and years of satisfying home comfort.

FACTORY ASSISTANCE. Help when you need it—to swing the big deal, to close the sale, to make sure the installation is right.

RIGHT PRICES. Every unit priced to sell—competitively—with full profit for you.

SALES HELPS. A complete lineup of hard-hitting sales helps planned for early availability.

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PRODUCTS OF BORG-WARNER

Airline Heating and Air Conditioning equipment is produced by Ingersoll Conditioned Air Division of Borg-Warner Corporation. The vast resources, engineering skills, and manufacturing facilities of these organizations assure you fine quality and dependable performance. You can depend on Airline—and Borg-Warner—with complete confidence.

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Dept. AA 760 E. Vine St., Kalamazoo, Michigan

Tell us more! Rush Airline details for: ☐ Franchise Distributor

☐ Going-places Dealer ☐ Have your representative call on us

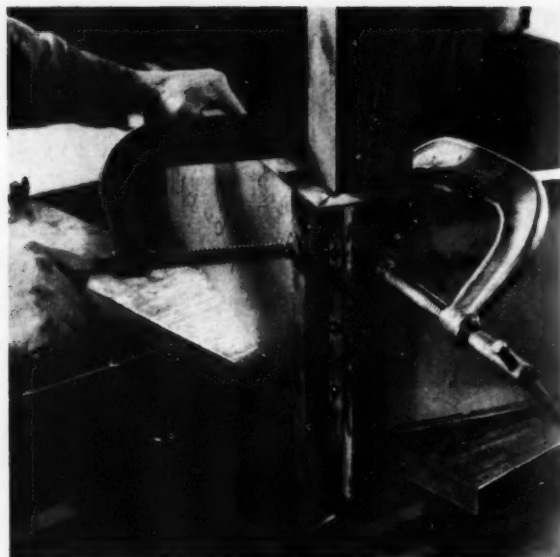
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Welding Stainless Steel With Standard Equipment



TACK-WELDED right angle seam is guarded against heat and distortion by steel bracing bars

... can be done by varying certain procedures and observing certain precautions, but the basic idea is the same as for carbon steels

By E. M. Rains
Armco Steel Corp.

SKIP WELDING

A progression of short welds with gaps between filled in after earlier welds have cooled sufficiently.

STEP-BACK WELDING

A series of short weld sections of equal length, starting each weld a certain distance ahead of the last and working back to it.

MANY SHEET metal shops which have been welding galvanized or uncoated carbon steels for years have found they can also weld stainless steel with their regular equipment by following a planned sequence of operations and using efficient heat-removing methods. Remembering that the possibility of warpage is greater in welding stainless steels because the coefficient of expansion is approximately 50 percent more and heat conductivity is about two thirds less than for carbon steel, welders who carefully observe the variations in procedure have found that welds are strong and ductile in the chromium nickel grades, even having an edge over carbon steel.

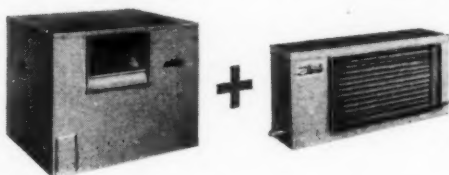
The chromium grades, such as the familiar 17 chromium (type 430) call for other considerations. Their coefficient of expansion is about 10 percent less than that of carbon steel with heat conductivity about half as great. There is some danger of distortion, especially in welding light gages. Proper precautions must be taken. Also it must be remembered that chromium stainless welds incline to be brittle at room temperatures and will not stand up under severe shock; yet fatigue strength is equal to or better than parent metal.

(This article continued on page 144)



Kooler-aire system

of "waterless" air conditioning



Kooler-aire operates on electricity only! Air cooled condensing unit, consisting of sealed compressor, condenser coil, blower and receiver, can be located in or out-of-doors. Unit is used in conjunction with housed cooling coil, which may be installed anywhere in outlet side of air supply system. Copper tubing carries the refrigerant from condensing unit to cooling coil.

3

doggone good reasons for not missing

usAIRco

at the show!

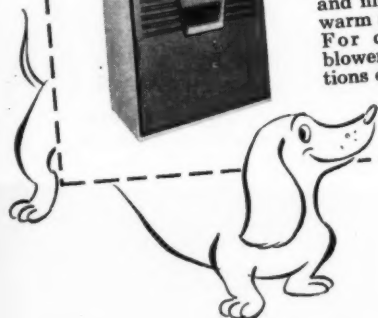
Now usAIRco gives you the most complete line-up of home air conditioning equipment to hit the market! usAIRco units fit every type of home, every type of air conditioning problem! usAIRco home air conditioners have every advanced feature of design and construction... made possible by more than 30 years of air conditioning know-how. With usAIRco you can meet every demand of the home market, profitably!

"packaged" air conditioner

for commercial or home use



For home "add-on" installations, the usAIRco "packaged" air conditioner is quickly and easily connected to a warm air furnace. Only two simple duct connections are required. The home unit utilizes ductwork, blower and filters of the existing warm air heating system. For commercial use, blower and plenum sections can be added.



Year 'round combination



home cooling and heating unit

The usAIRco year 'round combination cools, heats, filters and humidifies the air. Consisting of a gas fired furnace and matching air conditioning unit, this compact combination requires little more space than the average furnace. It can be installed almost anywhere... basement, closet or utility room. Same ducts distribute both warm and cool air.



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Export: 13 E. 40th Street, New York 16, N.Y., U.S.A.

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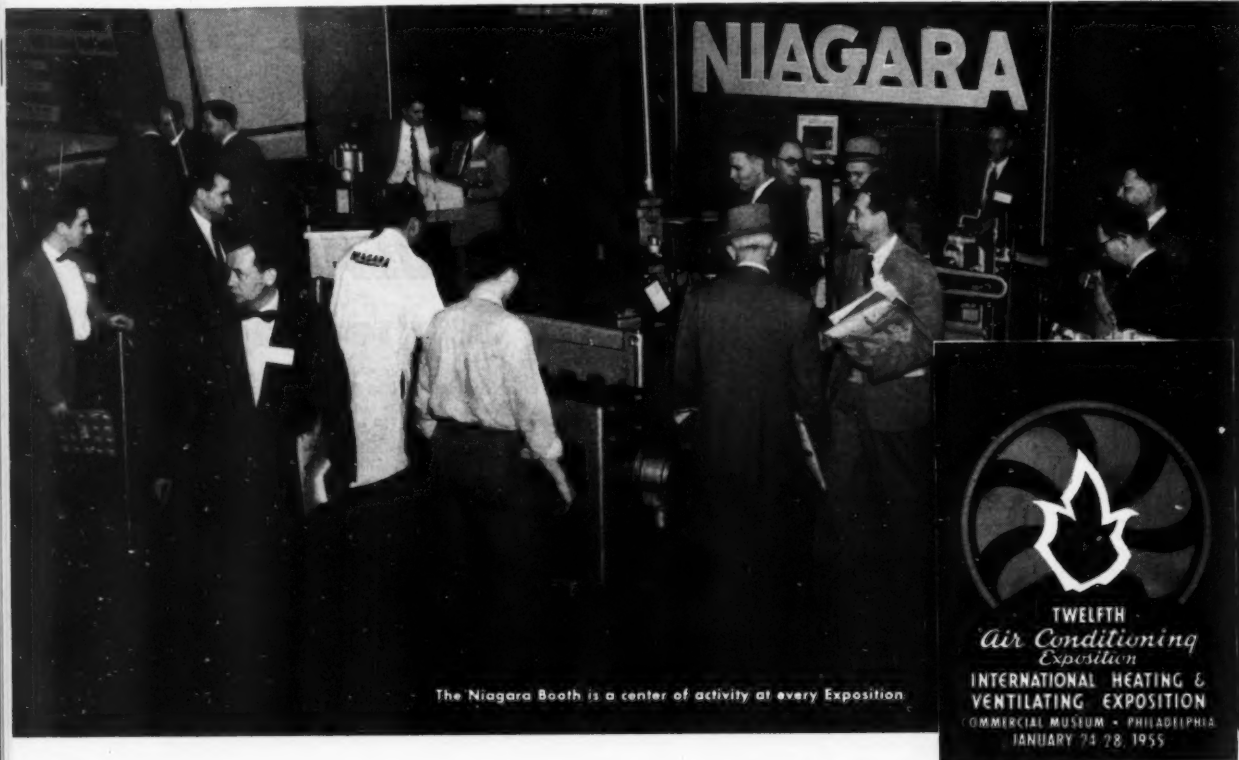
PHILADELPHIA, PA.

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Booths 58-59

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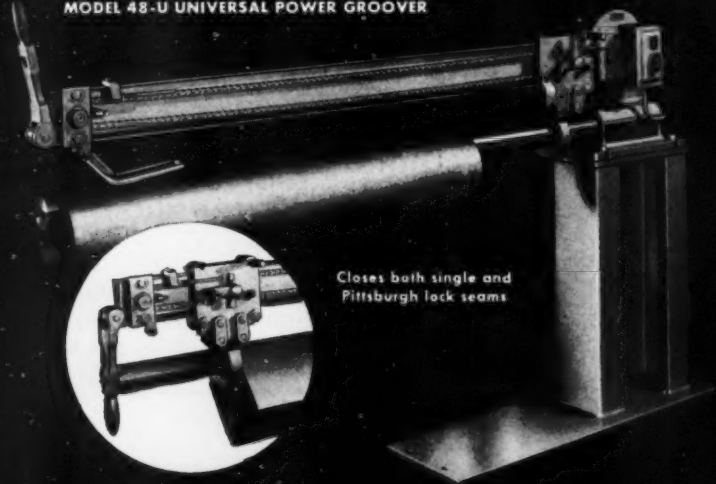
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PERFEX SERIES 480

COMBINATION FAN and LIMIT CONTROL

Proven...absolutely FAIL-SAFE!

Cut costs with the Perflex Combination Fan and Limit Control — and obtain unsurpassed, absolutely **fail-safe** performance. Designed for forced warm air systems, the 480 meets the needs of any installation. Single thermal element actuates both fan switch and limit switch. Finest by every standard, you can specify with confidence when you specify Perflex.

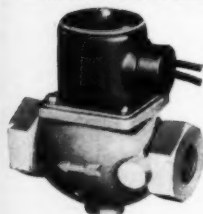
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480-A



PERFEX CORPORATION, Milwaukee, Wis. • In Canada: Perflex Controls, Ltd., Guelph, Ontario

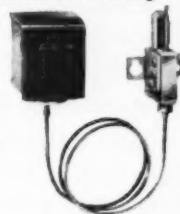
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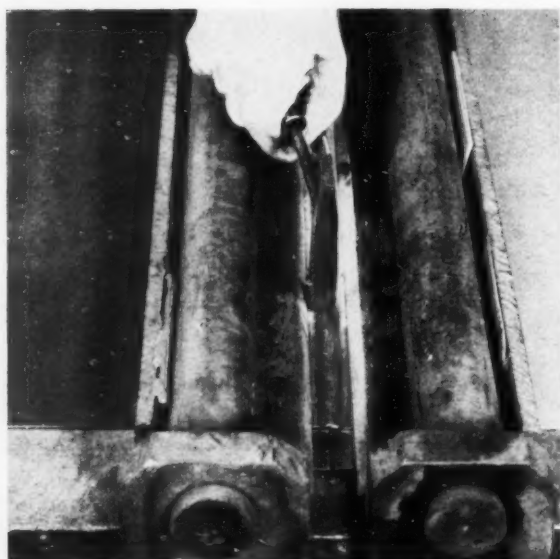
SERIES 175 MAGIC DIAL THERMOSTAT



**SERIES 1004
AUTOMATIC
RESET PILOT**

Welding Methods for Stainless Steel

(Continued from page 140)



CHILL PLATES and bracing bars permit proper cooling as slag is scraped off with a hammer



INERT GAS-metal arc welding after tacking produces a sound weld without grinding

Controlling distortion is best accomplished by applying copper chill plates near the weld zone to help dissipate heat and minimize expansion.

Jigs or fixtures should be rigid and well designed to hold the parts to be welded in correct alignment. Warpage is less likely when the weldments are permitted to cool properly in the fixture.

Where a fixture cannot be used, tack-weld the joints every one or two inches and then peen all welds which reveal pronounced shrinkage. When the joint is completely straightened, proceed with finish welding.

Control of distortion in complex assemblies usually calls for special consideration and a well planned sequence of welding steps. *Skip welding* and *step back welding* are quite successful on sheet and plate work.

In skip welding, make a short weld, then "skip" ahead and make another short weld, return to the first weld and fill in the gap. Allow enough time between adjacent welds for the first to cool and contract.

In the step-back method, the weld is made in short sections of equal length. After laying the first short bead, start the second one at the correct distance ahead of the first and weld back to the cooled end of the first bead. Repeat this procedure until the work is completed.

Spot and Seam Welding

Resistance methods such as spot and seam welding are well suited to joining stainless steels. However, machine settings are different than those used for low-carbon

steels and settings for the latter should not be used. These fundamental points will serve as a guide:

- 1) Electrical resistance of the chromium and chromium-nickel grades is about six times greater than that of carbon steel. Current should be somewhat lower and on time shorter. *Hold* time should be longer to permit adequate cooling.

- 2) Apply almost twice the electrode pressure you would use on low-carbon steel of equal thickness.

- 3) For quick removal of undesirable heat, use water-cooled electrode tips.

Metal Arc Welding

Experience has shown that metal arc welding usually is more satisfactory than oxyacetylene welding for stainless steels, particularly for 20 gage and heavier sheets. It is faster and there is less buckling, although it is not so readily controlled and care must be observed to prevent generation of too much heat.

Flux-coated electrodes are necessary for arc welding stainless steels. The flux not only shields the molten metal from the air and prevents oxidation of the chromium, but also has a stabilizing effect which helps maintain a steady arc and even metal flow into the shielded area.

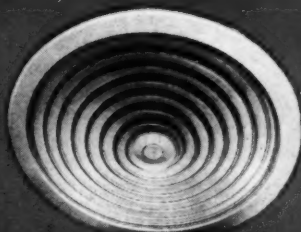
To prevent porous welds caused by moisture in the electrode coating, bake electrodes a short time at 200F.

When in doubt about the correct electrode to use for certain jobs, consult the manufacturer or supplier.

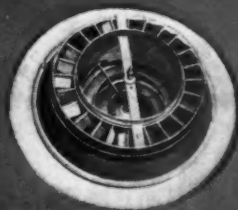
(This article continued on page 149)



TYPE R Circular, adjustable volume, constant pattern and radial diffusion.



TYPE V Circular, adjustable volume and pattern, for heating and cooling.



TYPE CH Circular, adjustable supply and return, for heating and cooling.

a model for every diffuser need

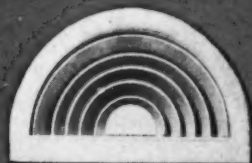
FLEXIFLO

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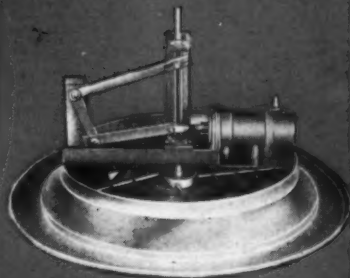
All FLEXIFLO diffusers are styled simply, beautifully . . . finished in baked enamel of any desired color . . . extra features include built-in equalizing deflectors . . . simple, easy installation and removal of diffuser cores with just a "twist of the wrist."

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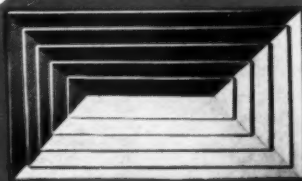
Let a trained FLEXIFLO sales engineer help you solve your air distribution problem. Representatives in major cities throughout the U.S. and Canada.



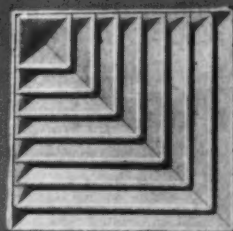
TYPE S Half-round, for side wall or ceiling, for heating or cooling.



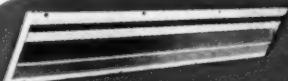
TYPE A Circular, adjustable volume, constant pattern **AUTOMATICALLY CONTROLLED.**



TYPE MP Rectangular, for one, two, three or four-way diffusion, 16 styles, hundreds of sizes to accommodate any shaped area.



TYPE H Square, adjustable volume, constant pattern and radius of diffusion.



TYPE MP Long strip of any length, for one- or two-way diffusion.



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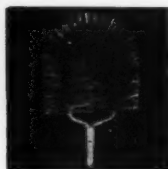
Performance tested, SCHAEFER Brushes offer longer wear, better service, greater value—with the *correct* brush for every industrial and domestic use.

SCHAEFER Flue and Boiler Brushes of SILVER BRITE Rustproof Wire

SCHAEFER'S special alloy "Silver Brite" rustproof spring steel wire has been developed for longer wear, more effective cleaning. It offers extra value, extra satisfaction in any brush.



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No. 8-394—2 1/2"x6"x6 1/2"
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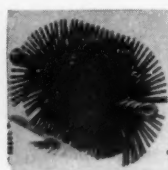
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SCHAEFER Boiler Brushes
No. 8-399—2"x4"x6"
No. 8-400—2 1/2"x4 1/2"x6"
No. 8-401—3"x5"x6"



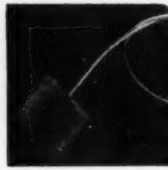
Single and Double Spiral Flue Brushes
No. 8-432—Single Spiral—1" to 4" dia.
No. 8-433—Double Spiral—1" to 4" dia.
No. 8-434—For Small Flues, 1/2" to 1" dia.



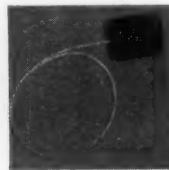
SCHAEFER Round Flue Brushes of Single Spiral, Flat Steel Wire
No. 8-430—1" to 4" dia.



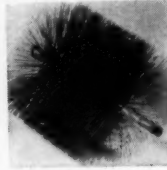
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SCHAEFER Furnace Brushes of Silver Brite Rustproof Steel
No. 8-442—3"x4 1/2"x5" with 5 ft. handle.



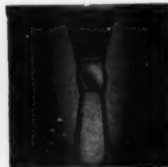
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Selected Basine fibre, flexible wire stem, 4", 5", 6" dia., 48" and 60" handle.
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SCHAEFER Chimney Cleaning Brushes
No. 66—6", 7", 8", 10" and 12" dia. round style of Black Tempered Brush Wire.
No. 666—6", 7", 8", 10" and 12" dia. oblong style of Flat Tempered Steel Wire.



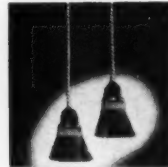
SCHAEFER Wire Wheel Brushes
Solid Center Type of crimped steel wire.
No. 276—6" dia. x 1 3/4" face.
No. 278—8" dia. x 1 3/4" face.
No. 280—10" dia. x 2" face.



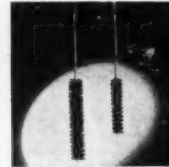
SCHAEFER Hand Wire Brush
No. 816—For roughing, soldering etc. 6" long, tempered steel wire trimmed 1 1/2".



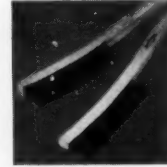
Tin Handle Acid or Dope Brushes
Selected grade bristles in tin ferrule. Width, 3/4", 1 1/4", 2".



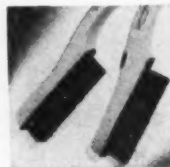
T. W. Flat Acid Brushes
Tinner's soldering brush, horsehair filling, 1 1/4" width, 7 1/2" overall. Twisted wire handle.



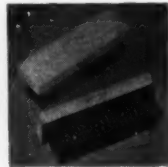
Radiator or Condenser Tube Brushes
Twisted in wire handle, selected hair or bristle. Wide range of sizes.
No. 10—3/4" dia. x 2" brush x 6 1/2" overall.
No. 11—1 1/2" dia. x 3" brush x 8 1/2" overall.



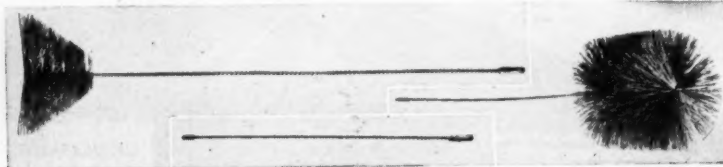
SCHAEFER Curved Handle Wire Brushes
No. 810—Oil-tempered steel wire, trimmed 1 1/4", hardwood block, 14" long. Brush 6", 2, 3 or 4 rows.



SCHAEFER Shoe Handle Wire Brushes
No. 812—Oil tempered rustproof wire, 5" brush, 2, 3, 4 rows. Trim 1 1/4", overall 10".



SCHAEFER Straight Back Wire Brushes
No. 800-11—Oil tempered steel wire. Hardwood block, 7 1/2" x 2 1/4". Wire trim, 1 1/4", 6 x 19 rows.



SCHAEFER Vacuum Cleaner Brushes
No. 1005—Basine Fibre Brush, 10 1/4" dia. tapered to 3" dia. x 6 ft. long—48" handle with threaded nipple at end.
No. 1000—Basine Fibre Brush, 10 1/4" dia. brush x 10" long. Handle 39" with threaded nipple at end.

Wire Flue Brush and Extension Handles
4 ft. Handles with Nipple and Coupling.
5 ft. Handles with Nipple and Coupling.
6 ft. Handles with Nipple and Coupling.

Write for SCHAEFER Catalog of flue and furnace brushes, or for information on any special brushes for specific requirements.

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117 W. Walker Street Milwaukee 4, Wisconsin

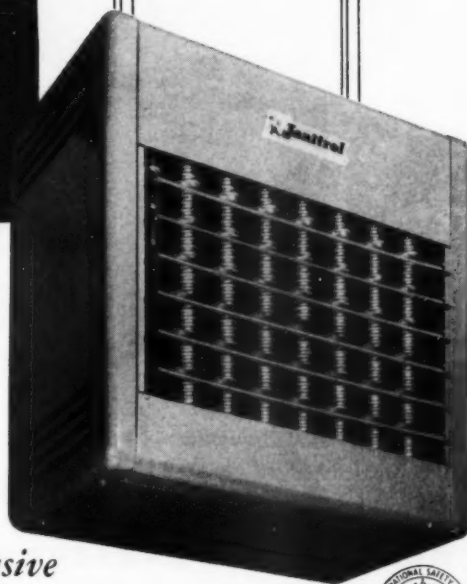
New for '55

Janitrol

**MODEL
UCS**

**FINEST
UNIT HEATERS
BUILT!**

Janitrol's 50 years of heating experience is incorporated in the design of the new Model UCS Unit Heaters. These new models are packed with new and improved features that again establish Janitrol's design leadership. Each of these improvements will make your Janitrols easier to sell, install and service.



New

EXCEPTIONAL QUIETNESS. An all-new acoustical design. Rubber-cushioned fan blades and motors, combined with dynamic balancing give a new standard for quiet operation.

Exclusive

MULTI-THERMEX HEATING HEART

The time-proven Janitrol design combination: Multi-Thermex heat exchangers with their exceptional record for long life . . . turbulator baffles which transfer heat rapidly . . . Amplifire ribbon burners for clean, quiet, uniform combustion. . . no flame impingement or hot spots.



New

COMPACT DESIGN. The smaller size gives more "head-room" . . . extra clearance between bottom of the unit and the floor below.

Exclusive

SAFETY OVERHEAT CONTROL

Extra protection for both the unit and the owner's property. If unit overheats, the gas valve closes and the fan motor starts . . . both automatically.



**SEE our
A.S.H.V.E. Demonstration**

Stop by our booth and see the famous Dura-tube heat exchanger heated to 1200° F. and then cold-water quenched! It's dramatic proof of the extra durability designed into Janitrol equipment.

WHOLESALEERS AND CONTRACTORS. Write today for complete information on these new Janitrol models.

Janitrol
HEATING AND AIR-CONDITIONING
DIVISION

Surface Combustion Corporation, Columbus 16, Ohio
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* Every advantage that has made Tecumseh a leader in the compressor field is sealed into this new and complete line of integral hermetics.

Tecumseh offers **FULL TONNAGE** **HERMETIC COMPRESSORS for year-around air conditioning**

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1 1/2 H. P.	2 H. P.	3 H. P.	5 H. P.
HERMETIC COMPRESSORS			

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Bulletin 100 contains detailed information and specifications. Send for your copy today.

THE PHILADELPHIA STORY

Booth 62 at the Heating and Ventilating Exposition in Philadelphia will feature this new line of Tecumseh Hermetics.



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Tips on Welding Stainless Steel

(Continued from page 144)

Arc welding of stainless steels is done with both direct and alternating current. When welding sheets and light plates with direct current, reversed polarity — electrode positive with work negative — produces deeper weld penetration and more uniform fusion.

Keep in mind that current requirements are at least 20 percent less for stainless steels than for carbon steels because they have a lower melting point and higher electrical resistance. Another factor is the low thermal conductivity of stainless steel, which localizes heat from the arc along the weld and further serves to reduce the amount of current needed.

Procedure Is The Same

Procedure for welding stainless steels does not generally differ from that of welding carbon steels. Square

the edges to be joined; if the work is being done on polished sheets, place the polished side down.

Keeping the arc short will reduce oxidation and porosity. Excessive weaving should be avoided. With work $\frac{1}{4}$ in. or thicker where more than one pass is required, thoroughly clean all slag from the preceding bead before laying the next one.

The accompanying table lists suggested electrode sizes, current and other data for horizontal butt welding of chromium-nickel stainless steels of common thicknesses. Light gage sheets up to and including $\frac{1}{16}$ in. thickness are butted together. Sheets from $\frac{1}{16}$ to $\frac{3}{16}$ in. are spaced with a gap of about $\frac{1}{2}$ sheet thickness. Heavier gages are set up with a slight gap.

Inert Gas-Metal Arc Welding

Another welding method that has won much favor, especially with custom shops, is inert gas-metal arc welding, which is largely used in the welding of stainless steel sheets $\frac{1}{4}$ in. and lighter.

The work is grounded as in metal arc welding. A special torch uses helium or argon as a shielding gas around a single tungsten electrode. Flux is not needed because the gas furnishes sufficient protection. Filler rods also are usually unnecessary. Edges are simply butted together and fused.

The advantage of this method is that there are no heavy weld beads to grind down, which means substantial savings to both the shop and the customer. Also, heat input is less than with metal arc. It is possible too that existing equipment may either be suitable in its present form or be readily adaptable to inert gas-metal arc welding by adding only a few parts.

TABLE 1—BUTT WELDS in 18-8 stainless steel

Material Thickness	Pass No.	Wire Size	Amps.	Arc Speed In./Min. Ft./Hr.		Lbs. Electrode** Per Ft. of Weld
18 ga.	1	$\frac{3}{64}$	45	15	75	.020
14 ga.	1	$\frac{3}{32}$	60	12	60	.038
$\frac{1}{8}$ "	1	$\frac{1}{8}$	90	9	45	.08
$\frac{3}{16}$ "	1	$\frac{3}{32}$	125	7	35	.150
$\frac{1}{4}$ "	1	$\frac{3}{32}$	125	6	17.5	.34
	2*	$\frac{3}{16}$	160	8		
$\frac{3}{8}$ "	1	$\frac{3}{32}$	125	6	12	.51
	2	$\frac{3}{16}$	160	8		
	3*	$\frac{3}{16}$	160	8		

NOTE: Copper backing up bar should be grooved approx. $\frac{3}{16}$ " x $\frac{1}{16}$ " deep.

*Use slight weave.

** $\frac{3}{16}$ " build-up maximum.

Rules for Selecting a Job Estimator

(Continued from page 89)

their names and make sure they know yours. The man who doesn't know you cannot do business with you.

- 2) Let the customer do all the talking first so you understand thoroughly what he has on his mind.
- 3) Never make an estimate without seeing the job.
- 4) Dig into the details of a job to discover what service you can perform. Like a newspaper man, you must get the facts.
- 5) Allow yourself a margin for the unforeseeable. Contracts with extensive coverage are tricky.
- 6) Be reliable. When you promise to have a job completed by a certain date, see that it is done, but allow yourself sufficient time when you com-

mit yourself to the customer.

- 7) Inspect each job while the mechanics are working or immediately on completion. Never make a compromise with perfection; do it right or not at all.
- 8) Investigate "call backs" immediately — they precede new business. The customer you have is infinitely more important than two prospects.
- 9) If you do not know, say, "I don't know." Guessing is tremendously expensive. Know what your concern is *not* equipped to do and what to avoid.
10. Eat, sleep, and live regularly; plan your work and work your plan. Work hard, but save time for relaxation.



So Desirable!

**your customers want the
benefits of year-round
conditioned air by
PEERLESS**

The homeowners public demands the finer things . . . their homes and family are all-important. . . . So it is with Peerless, the finest in heating and air conditioning equipment. Quality is all-important and has never been sacrificed for any other consideration. When you offer Peerless, you are certain that your customers will get the best equipment for conditioned air that can be built. . . .

There is no finer heating or air conditioning equipment than Peerless!

Winter...

Whether for basement or utility room installation, there is a Peerless Versat-All unit designed specifically for the location. Each, of course, has the durable, dependable Versat-All burner—oil or gas. Perfect heat-travel in the wrap-around baffled heat exchanger . . . no hot spots and no cold spots. Utility model cabinets are only 22" and 26" wide.

Summer...

Peerless air conditioners are designed for all types of installations and there's a model for every budget requirement. The Clima-Twins are matching twin units, one for heating and one for air conditioning. Clima-Twin-Zone air conditioners are air-cooled and priced to meet or beat the cost of window-installed units. Watch our ads for the introduction of our revolutionary new remote evaporator air-cooled units.



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Please send me full information on Peerless heating and air conditioning equipment.

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He's trying to give a humidifier ulcers



Skuttle—the first to give humidifiers breakdown tests to improve quality

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REPORT FOR **Skuttle Mfg. Company**
Milford, Michigan
 Attention: **Mr. R. W. Gelsler, President**

REPORT NUMBER **4926-E-3**
 DATE ISSUED **1-22-54**
 CLIENT'S ORDER NO. **R. W. Gelsler**
 DTL ORDER NUMBER **83718**

SALT SPRAY CORROSION RESISTANCE TEST

DESCRIPTION OF SAMPLES:
 1-#450 Humidifier assembly including copper supply line and installation fittings
 DTL Sample No. 48-E-4
 2-#452 Blue Vitreous enamel coated pans from #450 Humidifier
 DTL Sample No. 48-E-1 a and d

STATEMENT OF THE PROBLEM:
 Expose the samples to salt spray corrosion according to ASTM



This technician at The Detroit Testing Laboratory, Inc. is doing his best to make Skuttle Humidifiers corrode—to give them "ulcers". Those clouds are salt spray—the recognized method of speeding up corrosion—finding weaknesses quick.

For almost a year now, Skuttle has retained the services of this laboratory—to make independent unbiased tests of Skuttle Humidifiers. They take our regular production units and give them the works—worry and bedevil them every way they can think of to see if they can produce breakdowns.

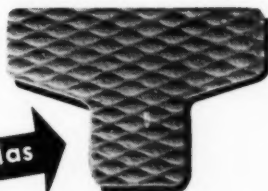
We're glad to report that they haven't had much luck in breaking them down—Skuttle Humidifiers are good. But any time their reports have shown an opportunity to improve the product, Skuttle engineers have taken prompt advantage of it.

Skuttle is the first and only maker of humidifiers to run tests such as these.

The purpose—to give you a better Humidifier to sell—the public a better humidifier to use.

The best humidifier is no better than its evaporating plates Skuttle has:

Patented Vapoglas



The plates evaporate the water to diffuse the moisture. A humidifier simply can't humidify without good plates.

By every test—by a wealth of records of use, patented Vapoglas plates are far the best. They are standard in Skuttle Humidifiers.

See our space at the forthcoming ASHAE Show in Philadelphia, Pa., Booth S-58.

7016

Skuttle

MANUFACTURING COMPANY
 MILFORD, MICHIGAN



Standardize on Skuttle—the line is complete—parts are interchangeable

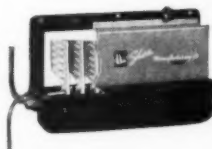
Skuttle Series 600

The most popular and successful of all humidifiers for many years. More than two million of them are in use today. It's the humidifier for warm air furnaces of the standard type, including winter air conditioners.



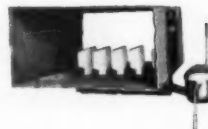
Skuttle Model 450

Hangs on the side of the heater—evaporating plates reach into air stream. Useful in counterflow, highboy, floor furnaces and space heaters, where space doesn't permit use of a Series 600.



Skuttle Models 750 and 760

Similar in general to the 600 and 600 B. Installed in the main duct. Does an exceptional job, particularly in heaters where the duct is the only place you can put a humidifier. Model 750 has the flushing feature—Model 760 is non-flushing.



selling air conditioning isn't like selling heating ...OR IS IT?

Time was when air conditioning engineers tried to scare the wits out of us with terms like adiabatic, latent and sensible heat, and so on. But not any more.

Heating men are finding now that there's no great mystery to cooling. Installing it is no problem, and modern cooling units are becoming about as foolproof as your refrigerator.

Permaglas air conditioning has made the whole matter about as simple as it can be. Cooling unit slides in like a drawer. No dampers, so no damper control problem. Hermetic compressor. Ceramic-coated heat exchanger ends problems from condensation. And your customers will know A. O. Smith, and the famous glass-lined Permglas water heater.

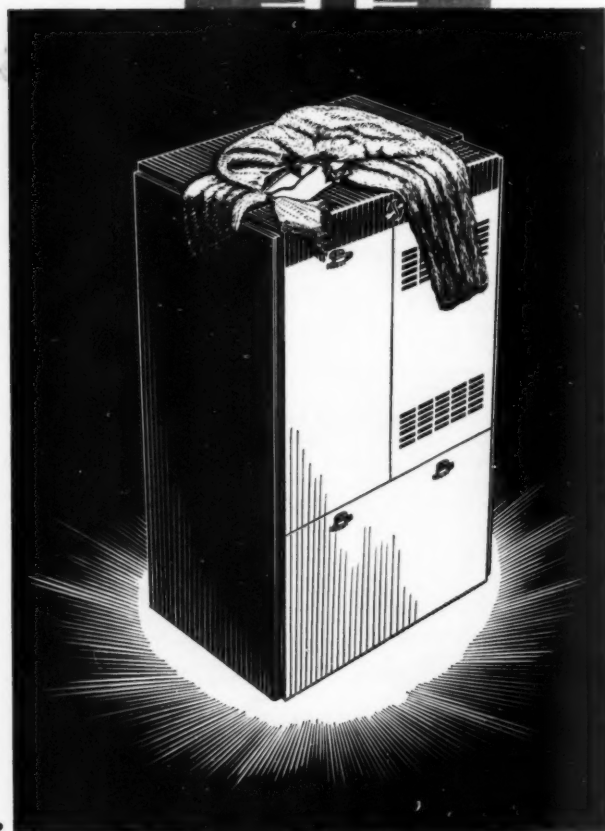
Permaglas is going places—are you aboard?

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HEATING AND AIR CONDITIONING



Permaglas glass-lined water heaters mean freedom from rust and corrosion to over 2,000,000 families. A. O. Smith-Burkay Commercial Water Heaters are the world's most popular in their field.



Through research  ... a better way

A.O. Smith

CORPORATION

PERMAGLAS DIVISION • KANKAKEE, ILLINOIS

Philadelphia Warm Air Industry Expands

... to commercial application after a long history
of enterprise and improvement in the residential field

(Continued from page 136)

tub was *de rigueur*, and a new feature, a garage, was an important part of the package. Prices were well above pre-war levels and Philadelphians were buying.

The Philadelphia home market was dominated by speculative builders who developed *operations* of 25 to 50 houses, (comparable with present day project homes in character only) furnished a sample house and proceeded to sell off the operation. Sample houses were opened early in the Spring and if the operation sold quickly, perhaps the builder would dispose of 100 to 300 houses in a season. The builder, of course, wanted all the modern features to sell his home quickly but the builder had a problem to overcome to sell his house. That problem came out of Detroit — Americans wanted garages for their new motor cars.

Motor Car or Furnace?

The Philadelphia row house lot had no room for a garage, either attached to or detached from the house. This handicap was converted into a selling feature. The builder raised the floor levels and used the rear part of the basement for a garage. Kitchens had become smaller, so the laundry was moved to the basement where the floor had been dropped to near the rear grade level for the garage. The housewife now washed in the basement, and walked out the rear door direct to the yard. These major changes in the design and use of the basement area put a premium on the use of the remaining basement space. It was a design challenge to the warm air industry.

The decline in the number of warm air heating systems continued until the depression year when home building almost stopped. However, the warm air heating industry had been going through a developing phase — the use of centrifugal blowers, more compact units, more attractive registers and grilles and humidification all added to the appeal of this type of central heating system. As building contractors began to look around for new ideas to include in the homes they were building, they found these advantages of the warm air heating systems ideal as selling aids for the houses they were building.

Sheet Metal Contractors' Part

Much of the credit for development of the warm air heating system is due sheet metal contractors who recognized the potential of this industry and wanted to tie

sales of furnaces and the services of the sheet metal shops together.

These people preached the gospel to the builder, took the gambles of the early installations without accurate cost guidance and talked glowingly to anyone who would listen of this new heating and comfort method which made all previous systems obsolete.

Certain new conditions favored it. Whether in response to the lower marriage and birth rate or because costs were hammered hard to find a favorable price tag for the conventional six-room-and-bath home, average room sizes were shrinking. Added to the low cost and sales appeal were the many advantages of the warm air heating system. The progressive home designer didn't pass over the idea. Neat and compact and with the selling force of a growing and enthusiastic sheet metal craft behind it, warm air heating made steady progress until Pearl Harbor.

In the present residential building boom which began after the close of World War II, the warm air heating dealer rapidly gained a position in the Philadelphia market. The records of one utility show of a total of 150,000 installations prior to 1940, 25 percent were warm air systems. During 1954 a check of 40,000 installations indicated that slightly more than 80 percent were warm air systems. The steady advance of technical knowledge on the part of the installer, the improvement in furnaces and controls and the use of flexible air distribution systems including perimeter heating along with summer cooling equipment have all contributed to this successful record. Not confined to Philadelphia, but having a special impact there because of the heavy trend to warm air heating, is the contribution made to low cost by improved power-operated sheet metal machines. Rising labor costs in fabricating duct assemblies have been offset more by their use than has been the case in other industries.

Dealers Develop Their Market

The typical warm air dealer in the Philadelphia area takes a keen interest in good installation practices and has acquired a thorough knowledge of them. He is the principal attendant of the annual Philadelphia Indoor Comfort Conference offered by National Warm Air Heating and Air Conditioning Association. He designs and installs in general accordance with association standards.

(This article continued on page 156)

Make Your
For More



Move Now Sales... Bigger Profit With Thatcher

Thatcher's Complete Line

Make sales faster, easier with the backing of a *complete line* company! *Every* type of unit—for *all* fuels—for *every* system. Puts you in a position to sell *both* the new construction and modernization markets. And most important: Thatcher's winter heating and summer cooling lines assure you year 'round business—year 'round profits!



Thatcher's Complete Sales-Building Program

Spark buying action with a proven power-packed program! Hard-hitting, national consumer advertising—special sales-training manuals—cooperative exhibit program—full store and on-the-job dealer identifications—special Modernization Sales Promotion Kit . . . plus many other tested sales "go-getters". Everything you need to alert *more* prospects . . . close *more* sales.

Thatcher's Complete Consumer Confidence

All prospects want the feeling of positive protection for their investment. They'll buy faster and more confidently from *you* when you offer the plus values of Thatcher equipment . . . backed by Thatcher's 10-Year Guarantee on all warm air conditioners. It's *one* of the many sales features that continue to give Thatcher wholesalers and dealers that extra edge on competition!



Thatcher's Complete Personalized Assistance

Thatcher has been geared to consider your sales problems individually . . . to work with you on the special needs of your market. Only this kind of *close, personal* relationship can properly advance your interests . . . add to your success!

Get the jump on competition today! Make your move now . . . write to Thatcher Furnace Company, Garwood, New Jersey. Complete information will be sent to you immediately.

DON'T MISS THATCHER'S
All New 900 Sq. Ft. Exhibit
BOOTH 508
INTERNATIONAL HEATING AND
VENTILATING EXPOSITION
Convention Hall • Philadelphia • Jan. 24-28



Layout for an Off-Center Taper Intersection

(Continued from page 97)

(Fig. 5), starting at the top line. Through the points developed draw the intersecting pipe pattern outline.

Quarter Taper and Hole Shape, Fig. 6 —

a) Draw a horizontal line about $5\frac{1}{4}$ in. long. At the right end of this line establish point R'. With this point as center and radius R'-V (Fig. 1), draw a long arc downward. Where the arc crosses the horizontal line mark the point V'.

b) Calculate the length of one quarter circumference of a 4 in. diameter circle by multiplying the radius by the factor 1.57. Thus, 1.57×2 equals $3\frac{1}{8}$ in. From point V' measure the arc length $3\frac{1}{8}$ in. and mark the point Y'. Draw the line Y'-R'.

c) Measure length R'-X (Fig. 1), and with R' (Fig. 6) as center, draw an arc to intersect lines R'-V' and R'-Y'. Mark the intersecting points as X' and Z'.

d) Working from point R' (Fig. 1), measure arc

lengths R'-5", R'-6", R'-4", R'-7", R'-3", R'-8", R'-2", R'-9", R'-10", R'-1", R'-11" and R'-12" and line R'-U, and with point R' (Fig. 6) as center, transfer these arcs to the quarter taper pattern as shown.

e) Working from point V' on the arc Y'-V' (Fig. 4), measure chord lengths V'-8', 8'-9', 9'-10', 10'-11', 11'-12', and working from point V' on Fig. 6, transfer these chord lengths to arc V'-Y'.

f) Working from point X' on the arc Z'-X', Fig. 4, measure chord lengths X'-7', 7'-6', 6'-5', 5'-4', 4'-3', 3'-2', and working from X' on Fig. 6, transfer these chord lengths to arc X'-Z'.

g) From R' (Fig. 6) draw lines through points 7', 6', 5', 4', 3' and 2' on arc X'-Z' to intersect the corresponding arcs at points 7, 6, 5, 4, 3 and 2. From point R' draw lines from points 8', 9', 10', 11', 12' and 1' on arc V'-X' up to intersect the corresponding arcs at points 8, 9, 10, 11, 12, and 1. Through the developed points draw the hole outline.

Philadelphia Dealers Eye Commercial Market

(Continued from page 153)

He is carrying his experience into the field of commercial heating and has introduced, in the past year or two, forced warm air heating systems for schools, churches, and supermarkets. Bowling alleys, skating rinks and similar types of recreation buildings are going warm air through the enthusiasm of the heating dealer and the engineering knowledge available from the heating wholesaler. The sound engineering based on NWAHACA methods provided by the wholesaler combined with the dealer's installation skill is producing some noteworthy jobs in the 500,000 to 1,000,000 Btu class. In commercial work, skilled design must produce a custom made system adapted to the needs of the building, its owner and intended use, and the warm air system must do it at a lower cost. The tradition of wet heat in the commercial field was both stronger and older than in housing, and the sharp upsurge of warm air heating in residential use had made little impact whatever on the architect and engineer responsible for the non-residential design although this situation has now changed.

Now the Commercial Market

As recently as 1950 there was no ready-made market in the commercial and public building field for the warm air installer. Specifications for this construction invariably called for wet heat. Considering the mounting interest in summer cooling, it is difficult to account for

this blind spot in heating system selection unless one assigns it to a combination of long habit and tradition plus an almost complete absence of personal contact on the warm air heating industry's part to have specifications opened up to warm air.

The burden of changing this unfavorable condition has been taken up by warm air wholesalers working with groups of interested sheet metal and warm air heating dealers. Through steady personal contact in the architect's office, two factors have emerged particularly favorable to the use of warm air systems: 1) The owner often was interested in summer cooling; 2) Costs were running beyond his building budget.

The answer to the question of summer cooling, installed now or to be added later, is the readily adapted forced warm air system — as is shown by the number of owners and designers who list it as their first choice. Furthermore, the warm air system bids are substantially lower for heating alone, in some cases running an impressive 35 percent under other methods.

Careful design and close installation supervision have not only produced these cost savings but also have provided systems giving complete satisfaction for both heating and cooling. With the advantage of locally established high performance standards plus a year 'round system at lowest initial cost in his portfolio, Mr. Commercial W. A. Heating will pass over the welcome mat into a growing number of Philadelphia drafting rooms in 1955.

Evans

Lifelong

Air Filters

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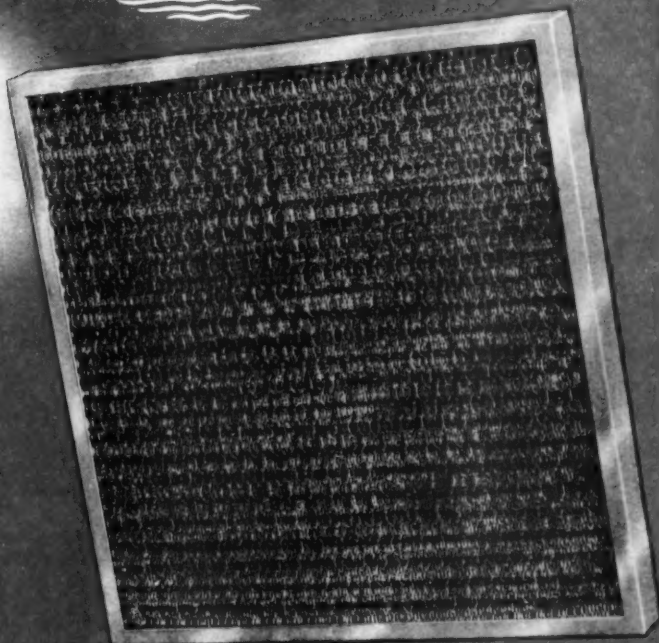
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Every part precision made and fitted. All aluminum. Cleans air cleaner. Catches and holds more dirt. Stops misting problems. Holds more than double the dirt load with less than one-half peak resistance to air flow. Clean with tap water. No special equipment needed . . . no fireproof room or caustic cleaning fluids necessary.

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✓ *Unit for every job—and pocketbook!*

✓ *No call-backs!* ✓ *Sales-building national ads!*

With the *completeness* of the Worthington line, Worthington dealers can handle *any* air conditioning problem. From year-round air conditioners to high-style window units—Worthington has them all!

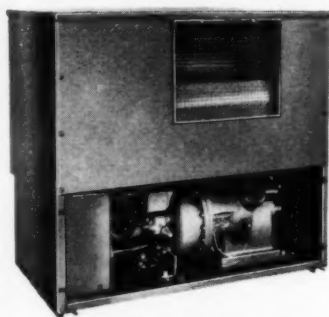
And when you install Worthington air conditioning or heating equipment, you can forget about it. It'll do a job—and *keep* doing it. Dependability like that is worth money to you and every contractor.

Contractors also like the bang-up national advertising job Worthington's doing. This big-money campaign reaches every corner of the air conditioning market via THE SATURDAY EVENING POST, SMALL HOMES GUIDE, HOUSE BEAUTIFUL, and HOUSE AND GARDEN—and it's all backed-up by a full line of dealer aids.

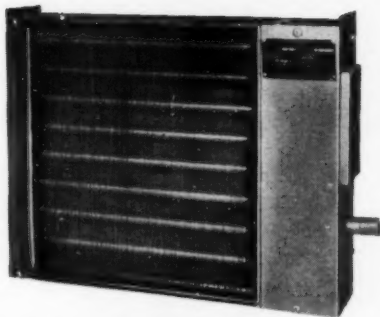
"The contractor's line"? You can say *that* again!

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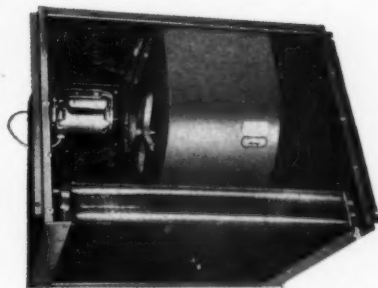
Meet 3 newcomers in Worthington's air-cooled line!



WORTHINGTON'S BRAND-NEW AIR-COOLED CONDENSING UNIT. Install it anywhere—outdoors, breezeway, garage, basement. *All electric—no water used.* It'll do an efficient job in even the hottest weather because of powerful condenser air-blowers, 2-, 3-, and 5-hp.

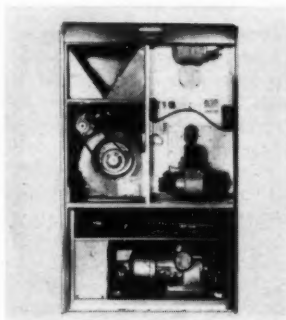


COMPANION COOLING COILS. Worthington's new broad line of Remote Duct Cooling Coils provides you with a wide range of capacities and sizes that will simplify your application and installation problems. Light-weight, easy-to-install unit is available in 2-, 3- and 5-ton capacities.



AIR-COOLED CONDENSERS. These new Worthington units feature over-sized condenser coils; powerful, quiet condenser air-blowers; continuous-duty blower motors; weather-proof cabinet. They convert water-cooled air conditioning units to air-cooled operation. 2-, 3- and 5-ton capacities.

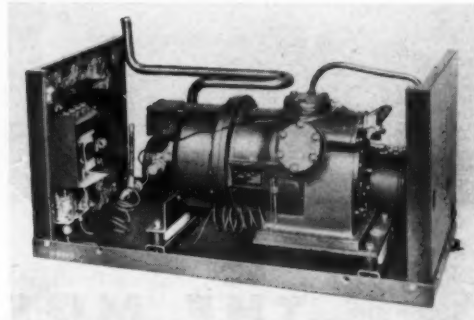
Look at these other Worthington units!



WORTHINGTON'S COMPACT YEAR-ROUND UNIT measures only 29" deep x 42" wide x 70" high. Ceramic-coated heat exchanger, gas or oil-firing. Completely automatic summer and winter operation.



"ADD-ON" RESIDENTIAL COOLING UNITS convert present warm air furnaces to year-round cooling and heating. When additional air delivery is needed, fan section shown on top of unit is used. 3- and 5-ton sizes.



WATER-COOLED CONDENSING UNITS. Worthington's packaged water-cooled condensing unit fits anywhere—closet, basement, attic, even in the garage. Compressor, condenser, and controls come in one compact cabinet. Use it with Worthington's Remote Duct Cooling Coil, for existing homes or new construction. Available in 3- and 5-ton capacities.



GAS-FIRED BOILER. Sectional cast iron, AGA approved for all gases. Enclosed in handsome cabinet. Readily suited for use with heating coils in packaged units for year-round application. 54,000 to 378,000 BTU input.

Want to know more about Worthington's complete residential equipment? Write to Worthington Corporation, Air Conditioning and Refrigeration Division, Section 4.59A, Harrison, N. J. And be sure to see the complete display (Booth 948-950) at the Heating and Ventilating Show in Philadelphia this month.

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PROGRESS IN PRODUCTS a door never closed for long... and one more reason why increasing numbers of heating dealers frankly prefer doing business with Sequoia. Typical are its new-for-1955 developments: (1) a series of air conditioners that stress the widest possible flexibility of installation; (2) new 75 and 105,000 btu furnaces in the narrow upright design style most often required by today's large residential developers.

These are tangible proofs of design-through-production progress at Sequoia. So, previously, was its widely-accepted Closefeer with its extremely shallow-depth... its pioneering of the now standard-design Horizontal... and its performance edge in perimeter systems with Rev-flo.

It is timely for each heating dealer to ponder this basic question: *How long since your manufacturers last unlocked the door leading to progress in products?* And timely too, to request full information on Sequoia's ever-broadening line from the sales office nearest you.

Your Warranty of Fitness

... may not absolve you from legal entanglements if the equipment you supply is inadequate for the job it's supposed to do



THE COURT may decide the expressed warranty does not always exclude certain implications

By Albert W. Gray

A CONTRACTING firm in one of the southern states undertook the installation of heating units in a construction project of 75 dwellings. The contract contained no guarantee except as stated thus: "Seller guarantees all materials furnished by him for one year against defective material and workmanship. One year for service."

Trouble began with occupancy of the first ten houses. The metal grates warped, the bricks crumbled, thermostats burned out, lintels melted and smoke and gas spread through the house.

Albert W. Gray, author of this article, has had over 20 years' experience as an attorney in the courts of New York City. He has written widely on legal matters and is the author of *The Family Legal Adviser*.

The heating dealer maintained that the contract represented the entire agreement and that as it contained the above-mentioned warranty, he was under no obligation for any other warranties.

This defense of the heating dealer rested on an old decision of the U.S. Supreme Court in which it had been held "There are numerous well considered cases in which an express warranty of quality excludes any implied warranty that the articles sold are fit for their intended use."

Certain Implications Inherent?

The building contractor contended that the heating dealer was under an implied warranty or agreement that these heating units were reasonably suitable for heating the houses.

A somewhat similar controversy occurred in another state where the owner had purchased furnaces and air conditioning units, putting his trust in catalogue assertions that the heating units were quiet in performance, worked cleanly and were odorless.

The purchase agreement in this case, however, contained the clause, "There is no agreement, verbal or otherwise, which is not set down herein." In the seller's suit to recover the agreed price for this equipment, the purchaser maintained the heat from these furnaces was inadequate and required a booster system, and that the equipment failed to perform as represented.

The court, in refusing to adopt this contention, said of the purchaser's right to rely on an implied warranty of fitness irrespective of provisions in the contract limiting the liability of the seller:

"The provision in the contract that 'there is no agreement, verbal or otherwise which is not set down herein' effectively excludes from consideration such undertakings which are not stated in the contract or incorporated therein by reference."

This point of law however, is not uniform in all the states in relieving the dealer from liability for an implied warranty. In an effort to overcome the contradictory decisions of various courts, heating and air conditioning dealers often include clauses in their agreements providing — as did an order form of a midwestern dealer addressed to the dealer and signed by the buyer — “You or your assigns are not bound by any warranties, agreements or modifications hereof unless endorsed hereon in writing.”

Specific Agreement Absolves Dealer

This provision was used by the seller in his defense against a damage action by the buyer charging that equipment was unfit for the purpose for which it was intended. Deciding in favor of the dealer, the court said:

“If a written contract purports on its face to be a complete expression of the whole agreement it is to be presumed that the parties introduced into it every material item and term, and it is not admissible to add another term to an agreement about which the contract is silent. In the instant case any such rights, duties or liabilities which would arise by implication of law are specifically negated by the provisions which each contract contains, ‘There are no understandings or agreements relative to this contract or the subject matter that are not fully expressed therein.’

“The clause not only negatives the fact that there are neither contemporaneous verbal understandings or agreements existing between the parties relative to the contract but also expressly negatives the fact that there are any understandings, whether arising by implication of law or otherwise, between the parties as to the subject matter of the contract. This clause of the contract is as binding upon the parties as any other clause.

“Disclaimers of the character involved here have extensive use throughout the commercial world and originate in a desire on the part of dealers to avoid bearing the risk of the success of the transaction involved. It seems to be an attempt by stipulation of the parties to impose the rule that the buyer must look out for himself, which rule was greatly lessened in scope and effectiveness by the development of the doctrine of implied warranties. If the parties so desire to contract we see no objection in law to their doing so.”

Protection Not Absolute

While clauses of this character in contracts for the installation of warm air or air conditioning equipment often protect a dealer from damage claims for a failure to fulfill all the anticipations of a customer, they are by no means an absolute protection under the conflicting conclusions of the courts in different states.

The extent of the protection from these disclaimer clauses and express warranties which are inconsistent with the implied warranty of fitness is strikingly illus-

trated in the contrast of two decisions rendered during the past few years in one state.

One action was based on the contract clause that materials and workmanship were guaranteed and defects would be remedied for five years. This was supplemented by the clause, “The above guarantee is in lieu of and includes all other guarantees, warranties, obligations or promises, expressed or implied by contract or by law.”

The court, in holding this clause to be a defense against a damage claim by a purchaser charging violation of this implied warranty of fitness, said:

“It is a well settled rule in this state that one who signs a contract is presumed to know its contents and that if he had an opportunity to read the contract which he signs, he is bound by its provisions unless he is misled as to the nature of the writing which he signs or his signature has been obtained by fraud.”

In another case in the same court a few months before, a similar disclaimer of liability for the fitness of the equipment sold received a severe criticism.

“Anyone brought up to believe that for every wrong there is a remedy will pause before saying that the seller will escape all liability by merely putting in an order blank a statement to the effect that there is no insurance that the buyer will get equipment that will work. We have paused for a moment and have readily concluded that the avoidance of liability under such a circumstance is not permitted by law.

Decision Defines Warranty

The conclusion of the court, in its decision against the dealer mentioned at the beginning of this article who had sought protection in the sale of heating equipment under a contract provision guaranteeing material and workmanship for one year, followed the middle of the road between the extremes of full liability for a lack of fitness and no liability whatever:

“In some cases it has been broadly stated that an express warranty in a contract to sell or a sale necessarily excludes any implied warranty. If express warranties in a contract are in their nature inconsistent with the warranties which would have been implied had none been expressed, it would indeed be violating the intention of the parties to imply warranties; and express warranties which relate to the same matter as those which the law would otherwise imply may be deemed inconsistent, but the principle should extend no farther.

“An express warranty is generally exacted for the protection of the buyer, not to limit the liability of the seller. The fact that the dealer expressly warrants equipment to be made of the best steel ought not to exclude an implied warranty that the equipment is properly manufactured and will do the work such machines are designed to do, if such warranty would otherwise be implied.”

[Note: While this discussion applies to actual cases, it should be remembered that legal rules vary in different states.]

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Just look for a moment under the jacket of the all-new Sunbeam Model GLA . . . a compact, gas-fired, all-steel basement unit priced to sell fast in today's competitive market. Look at the simple, space-saving design . . . the fine quality of all components. Based on American-Standard Research, and made possible only by Sunbeam's large-scale production, the GLA is a winter air conditioner that you will be proud to sell . . . and one that will build steady profits for you. Immediate delivery in all 8 sizes. Contact your Sunbeam distributor today for complete details. Sunbeam Air Conditioner Division, Elyria, Ohio.

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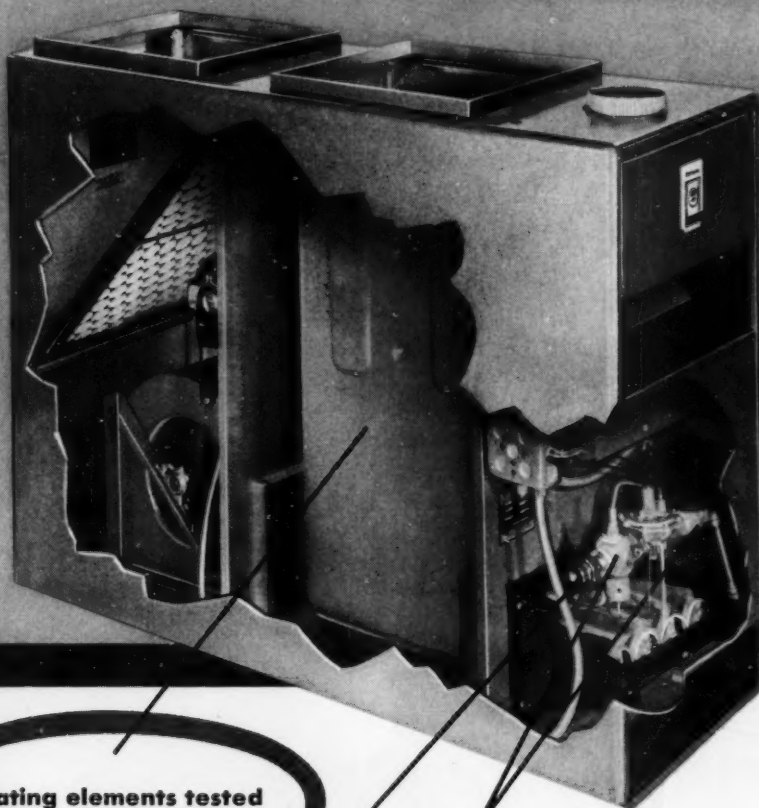
See the New GLA on display at the January shows—
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Your profit-building package

Saves you time and money because it is Completely Assembled, Wired and Installation Tested at the factory. This results in faster installation and minimizes service call-backs. The 5 smaller sizes—75,000 through 175,000 Btu input—are shipped in a single carton. The 3 larger sizes—200,000, 250,000, and 300,000 Btu input—are factory assembled and wired but shipped with blower section in a second carton for easier handling on customer's premises.

- Heavy-gauge steel jacket; Forge Red finish.
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**Heating elements tested
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**Automatic pilot valves
and quiet-action
gas valves are tested
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under air pressure.**

"INSTALLATION TESTED"

Every GLA unit is subjected to the industry's most rigid test before leaving the factory, just as if it were finally installed. Procedure includes actual gas firing and operation of the blower and controls.



Approved by A.G.A.

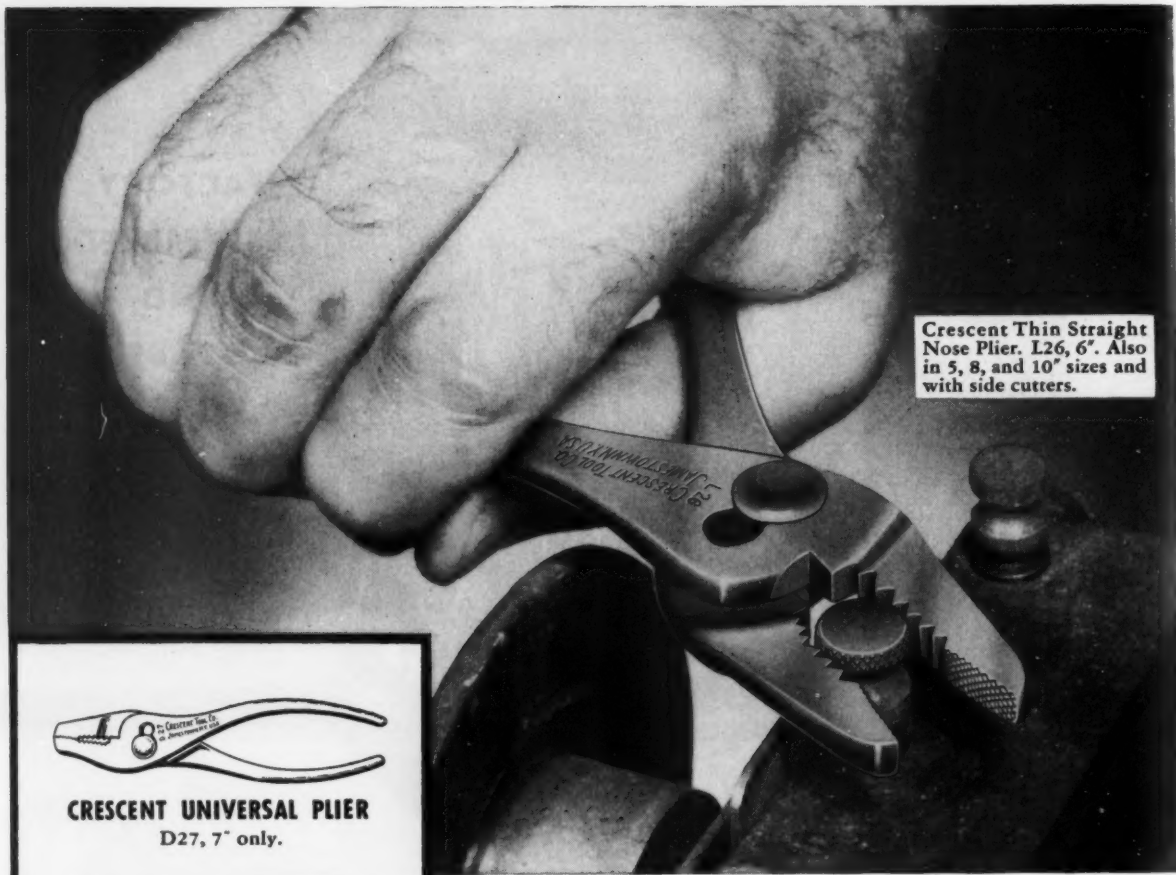


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Crescent Thin Straight Nose Plier. L26, 6". Also in 5, 8, and 10" sizes and with side cutters.



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CRESCENT THIN BENT NOSE PLIER
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CRESCENT SLIP JOINT PLIERS

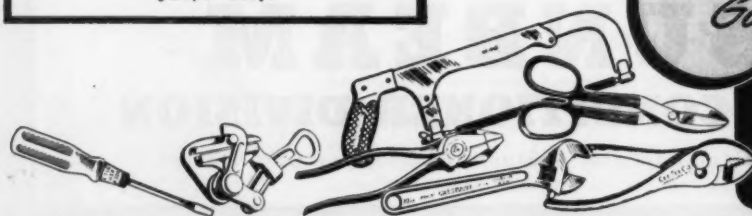
Crescent offers a wide selection of styles and sizes in this widely used plier type. All are drop-forged from special analysis steel and finished in bright plate. They have sharply milled teeth, comfortable handles and smooth working joints. The joint bolt and nut are turned from solid bar steel and case hardened. Sold by Industrial Distributors and Hardware Dealers everywhere.

CRESCENT TOOLS

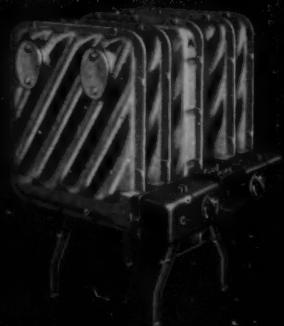
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Crescent is our trade-mark, registered in the United States and abroad, for wrenches and other tools. Sold by leading distributors and retailers everywhere and made only by
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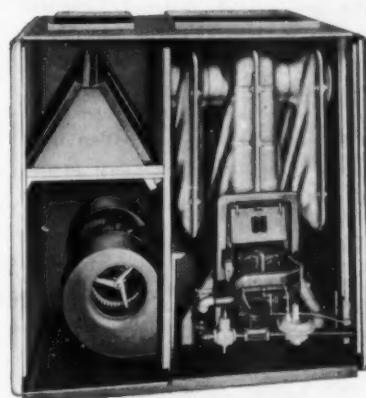
Rear view, showing two radiating sections (B) on each side of combustion chamber (A). Furnaces of larger capacity have additional radiating sections.

THE HEAT EXCHANGER THAT MADE **NiAGARA** FAMOUS

Continues Year After Year as a Great Money-Maker for Heating Contractors



The Deluxe Series 50 Gas-Fired Furnace. Shown at right with front panels removed to show the famous Niagara cast-iron heat exchanger and 3-speed direct-drive blower.



Installers and users alike are enthusiastic praisers of the cast-iron heat exchanger illustrated above. That's because the Niagara Series 50 furnaces in which these heat exchangers are used exclusively have become widely known for their efficiency and low operating cost . . . and because the combustion chamber section of the heat exchanger is made of copper-chromium-iron alloy, noted for withstanding high temperatures, assuring long life. The radiating sections are gray cast iron. Niagara Series 50 furnaces are money-savers for home-owners who use them. Niagara Series 50 furnaces are both money-makers and prestige-builders for contractors who install them. There are models for large and small homes. Deluxe models are available with special features, including 3-speed direct-drive blower, diaphragm gas valve and push-button lighter.

Niagara also makes a wide variety of gas and oil furnaces with steel heat exchangers, a few of which are shown here — and summer air conditioners, designed to use the air ducts and blowers of forced air heating systems.



Model 40-90AC
GAS (STEEL)



Series 60 AC Oil-Gas
Convertible (STEEL)



Series 60VAC OIL
Oil-Gas Convertible
(STEEL)



Series 60DFAC GAS
Oil-Gas Convertible
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Model 40-80VAC
GAS Up-Flow
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E-Z-ONS have a newly designed Automatic Slot Opener that permits instant assembly of the regulator to the damper. The regulator is simply positioned on the damper by sliding it over the scribed center line. E-Z-ONS accurately stay in position until a hammer blow drives the sharp prongs through the damper. If a Gerett anvil is used the clinching is automatic.

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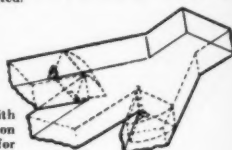
FAMOUS E-Z-ON STANDARD DESIGN No. 27

$\frac{3}{8}$ " bearing, dozen to a box, lists at \$3.30. Consists of solid end tail piece, threaded head piece and wing nut. Made of 16 gauge steel and heavily zinc plated, E-Z-ON prongs are strong enough to pierce 22 gauge metal.

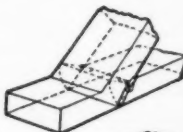
SUPERIOR E-Z-ON "SNAP-TITE" DESIGN No. 29

$\frac{3}{8}$ " bearing, dozen to a box, lists at \$4.00 and has tail piece with retractable snap end bearing, threaded head piece and wing nut. This eliminates need to bend damper or spring duct to insert damper. Made of 16 gauge steel, heavily zinc plated.

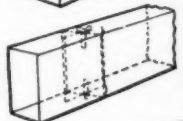
Dampers installed with E-Z-ON Regulators on one side or edge for branch ducts.



Splitter Damper attached at edge with E-Z-ON Damper Regulator.



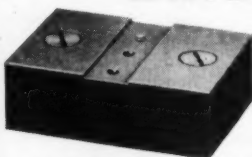
Volume Damper, with E-Z-ON centered at each end.



E-Z-ON Damper Regulator fastened to small damper with headpiece only.



STANDARD and "SNAP-TITE" SETTING ANVIL



Saves time assembling regulators, operating on the principle of a rivet set. Can also be used in kick or power press. Completely sets and fastens a unit in one operation. Of hardened steel. Weight $1\frac{1}{2}$ lbs., size 1" thick, 2" wide, 3" long—complete with fastening screws. Lists at \$2.50 each.

INDICATOR HANDLE



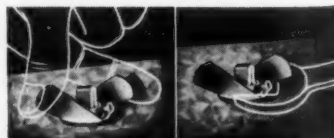
No. 26 Indicator Handle, lists at 36c per dozen. Ideal for systems that use same ducts for heating and cooling because it clearly shows damper position. . . can be turned to summer or winter setting. Made of 19 gauge steel, heavily zinc plated. Small slot in end allows use as a tool to engage tongue of regulator in place of pliers.

STANDARD E-Z-ON No. 27

Illustration actual size
Patent No. 2,285,829

"SNAP-TITE" E-Z-ON No. 29

Illustration actual size
Patent No. 2,342,877



USE FINGERS OR WRENCH

Fine S.A.E. type thread together with the large clamping surface on the wing nut assures positive damper locking.

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speed and profits**

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Memo

1955

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**Majestic
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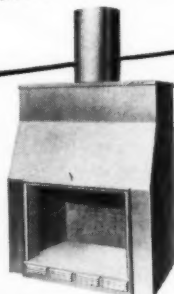
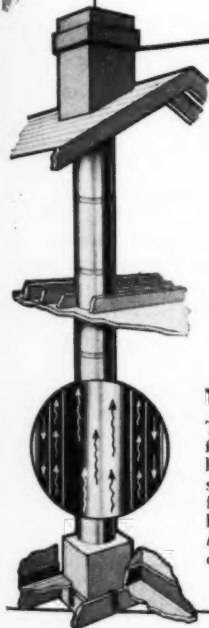
Majestic INCINERATORS

— gas-fired and fuelless

For disposal of trashbasket waste and garbage, Majestic makes a full line of home incinerators—from low-cost basement units that use the waste itself as fuel, to the gleaming, automatic, gas-fired model illustrated. A modern "convenience" feature that home-buyers are demanding!

Majestic SUMMER-WINTER AIR CONDITIONERS

Fuel-thrifty gas-or-oil winter conditioners and matching electric summer conditioners put Majestic year-around comfort into any home, small or large. Upflow and counterflow units have capacities from 76,000 BTU to 200,000 BTU, with horizontal flow models ranging on up to 392,000 BTU. In addition, Majestic also furnishes a complete line of pipe, fittings, and accessories for forced-air heating and cooling.



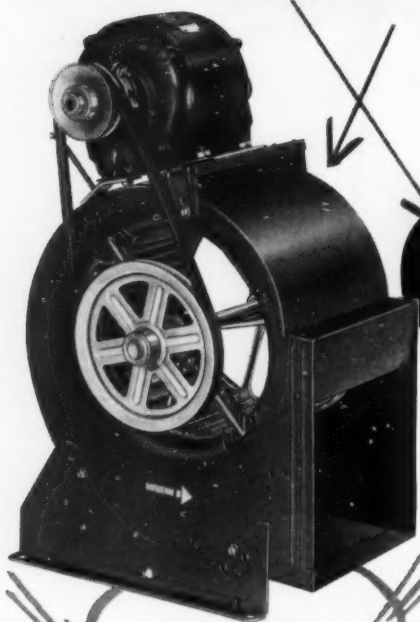
The Majestic Co., Inc.
394-L Erie Street, Huntington, Indiana



see **Majestic** at
BOOTHS 436-437, HOTEL SHERMAN
Chicago Illinois



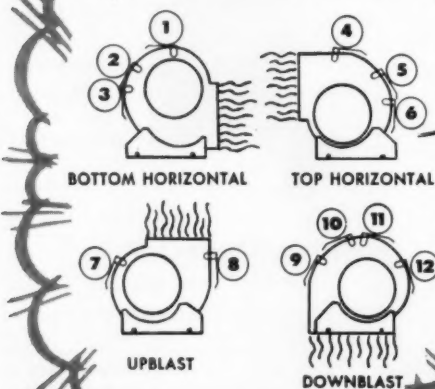
Here's a Completely New Idea In Blowers . . .



UNIVERSAL BLOWER with LOCK-ON Feet

**. . . Offering Lower Unit Cost . . .
Smaller and More Flexible Inventories
. . . Fast Delivery . . . Shorter Lead Time**

Here's How It Fills Your Needs Exactly



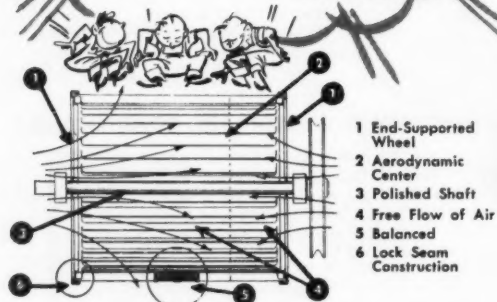
- Adaptable to all standard installation positions
- Lock-on foot design insures speedy production line assembly
- Permits twelve conventional motor mounting positions. Motor bracket designed so motor can be mounted on either side.

(Wheel shaft extends far enough on each side of scroll to permit pulley wheel to be mounted on either left or right side of blower.)

- Basic Scroll, Motor Mounting Bracket and Blower Wheel utilizes every new structural design improvement recently incorporated in conventional Viking Blowers to permit you to ship them installed, to expect many years of quiet trouble-free performance in your furnaces or air conditioners.

Rugged Wheel Design . . . Lock seamed end supports give blower wheel the strength needed to permit it to reach its destination point in tip-top condition. The end support principle and Vikinetic balancing make these units so quiet they have amazed everyone.

**Furnace and Air Conditioning Manufacturers . . .
Contact Your Viking Representative Today.**



- 1 End-Supported Wheel
- 2 Aerodynamic Center
- 3 Polished Shaft
- 4 Free Flow of Air
- 5 Balanced
- 6 Lock Seam Construction



DIVISION OF THE NATIONAL RADIATOR COMPANY
5801 Walworth Ave. Cleveland 2, Ohio



**Viking
Blower Packages**



**Viking
Blower Assemblies**



**Viking
Humidifiers**

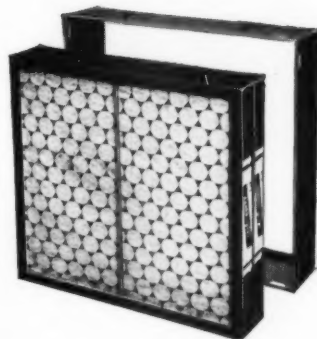
**Other Viking
Products**
Dehumidifiers
Attic Fans
Window Fans

FREE!

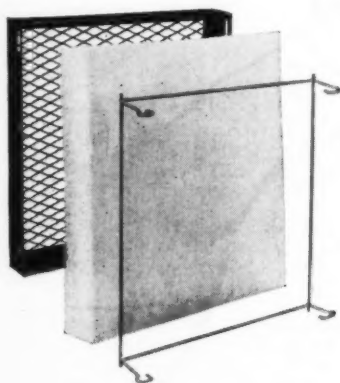
A COMPLETE REFERENCE ON AAF REPLACEABLE MEDIA AIR FILTERS

Here's complete product and engineering data on AAF's three replaceable media air filters. Each is designed for easy, economical maintenance. All feature AMER-glas—the versatile AAF filtering media offering such advantages as high cleaning efficiency; minimum air resistance; low cost; ease of handling and the absence of prickly, irritating slivers.

Write for your free copy of this 8-page, illustrated bulletin. It's full of new ideas—sound ideas that can save you money.



AMER-glas—features AMER-glas media in 1" or 2" thicknesses contained in a fibreboard casing between two perforated grilles for sturdy construction and easy handling. Metal frame units are available in four sizes in two nominal depths—2" and 4"—permitting filter cells to be installed in series for improved efficiency.



RENU-glas—a renewable air filter consisting of a metal frame and 2" AMER-glas pad. A spring retainer holds media in the frame, eliminating extra cost of casing to enclose pad. Range of four sizes permits assembly of filters in a bank to utilize practically all of any given space.



RENU-VENT — an efficient, easily maintained filter using AMER-glas pads $3\frac{1}{2}$ " in depth as the filtering media. In addition to providing increased filter media, the $3\frac{1}{2}$ " AMER-glas pad supplies greatly increased dust holding capacity without increasing the initial resistance proportionately.



Mail this coupon.
Now! ➡

American Air Filter

COMPANY, INC.

Louisville 8, Kentucky • American Air Filter of Canada, Ltd., Montreal, P. Q.

American Air Filter Company, Inc., 355 Central Ave., Louisville 8, Ky.

Please forward me copy of your new Bulletin No. 216 describing the AAF line of replaceable media air filters.

Name _____

Company _____

Street _____

City _____ State _____

An Invitation to

HEATING EQUIPMENT MANUFACTURERS



what you will see

For your inspection, Primor will display both new and improved cooling units in vertical and horizontal models. Shown for the first time, Primor will exhibit new air cooled equipment that's more compact and designed for integral installation with heating units or as a separate remote system.

Also new to the industry will be Primor's Air Cooled and Water Cooler Chiller assemblies. To see the progress made in the development of standard and custom designs for practical and dependable cooling, be sure to visit the Primor exhibit.

PRIMOR PRODUCTS, INC.

CENTRAL COOLING COMFORT FOR HOMES AND BUSINESSES

ADRIAN, MICHIGAN



Modine gas-fired unit heaters COST YOU LESS

1

TO PUT ON THE JOB

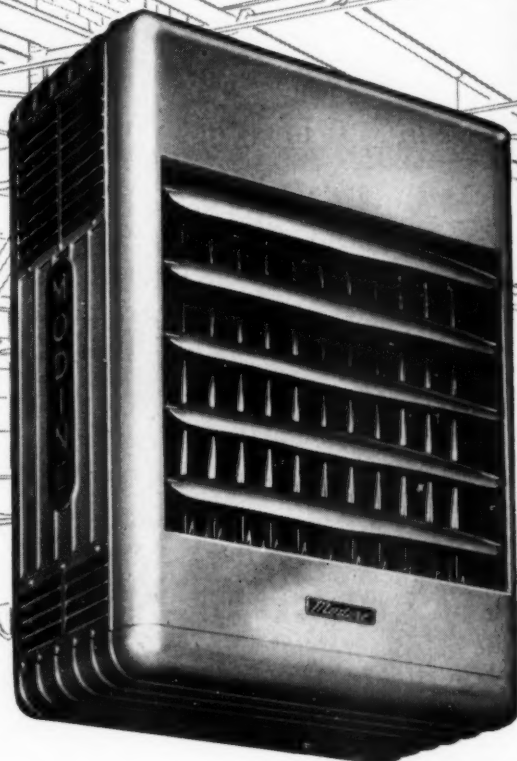
Because Modines are but half the average weight of other leading makes, no special hoisting machinery or ceiling supports are required. Installation is quick . . . easy . . . economical. In addition, shipping costs are cut to a minimum.

two ways...

2

TO KEEP ON THE JOB

Maintenance costs are less. Modine alone offers stainless steel burners and a choice of stainless or aluminized steel heat exchangers. And stainless has 8 times the life of ordinary steel . . . aluminized 4 times.



Modine Gas-Fired Unit Heaters are available in seven sizes—25,000 to 220,000 Btu. All are A.G.A. and C.G.A. approved.

YES, when you choose Modine Gas-Fired Unit Heaters, savings begin with lower shipping and installation costs. Advanced construction features allow a reduction in bulk while actually *improving* performance.

But real unit heating economy also demands continued high efficiency, minimum maintenance and lower fuel costs. Modine's answer: rugged construction with special long-life steels . . . superior heat throw and air volume . . . individually fired tubes to reduce radiant heat loss. So effective is the design that heat is delivered within 5 seconds after the thermostat calls for it.

This superiority is carried over from 25 years of Modine leadership in steam and hot water unit heating. Applying the same balanced performance features to gas-fired unit heaters again makes Modine the top-quality line.

There are many other important Modine advantages. Get all the facts from the Modine dealer listed in your classified phone book or use the handy coupon.

GU-1241

This 25,000 Btu Modine Gas-Fired Unit Heater weighs a mere 31 lbs. Ideal for factory offices, laboratories, wash rooms.



Modine UNIT HEATERS

MODINE MANUFACTURING COMPANY

1580 DeKoven Ave., Racine, Wis.

Please send me immediately a free copy of Bulletin 654 "Modine Gas-Fired Unit Heaters."

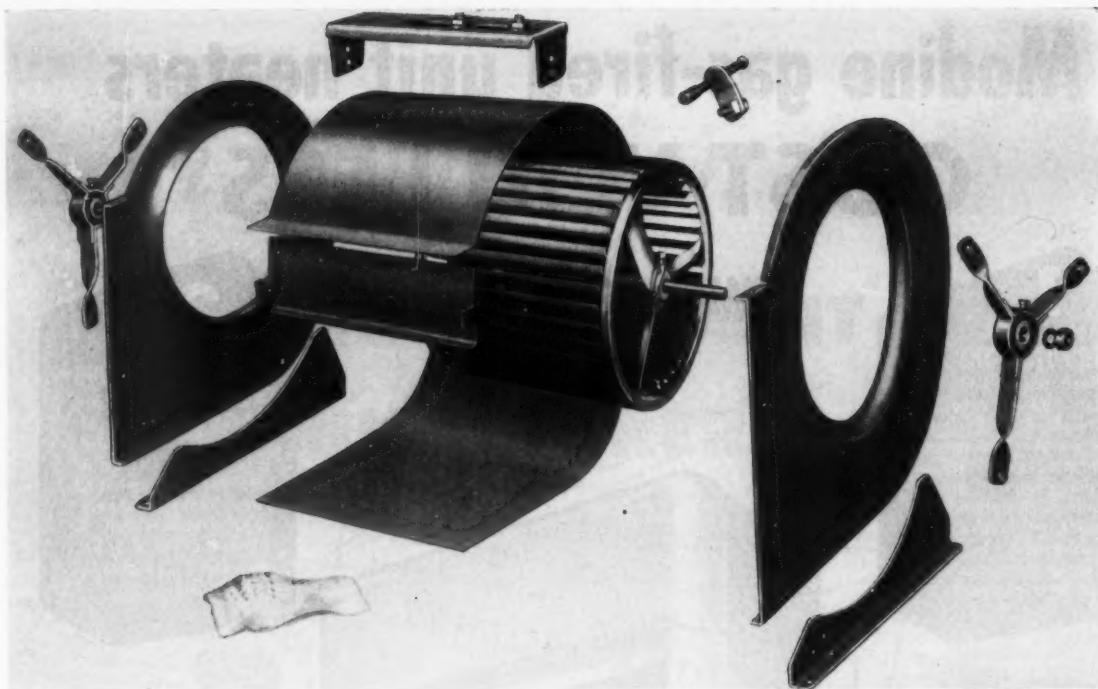
Name

Company

Address

City Zn State



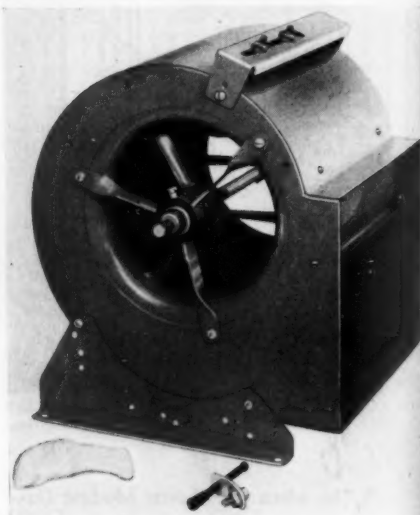


MORRISON PARTS OR COMPLETE BLOWER

Most of the Original Equipment Manufacturers we serve prefer Building their Own Blower Assemblies; because of these . . .

4 Definite Reasons

- 1** Use of "lag time" with no additional overhead.
- 2** Ease of adjustability to manufacturers' operations.
- 3** Quality control in every step of assembly.
- 4** 50% savings in dollars expended for Blowers.



Write for literature on Morrison Parts and on Complete Blower Assemblies.

THE MORRISON PRODUCTS, INC.

16816 Waterloo Road
CLEVELAND, OHIO



Barkow

AIR-COOLED and WATER-COOLED *Weatherwise* Air Conditioners

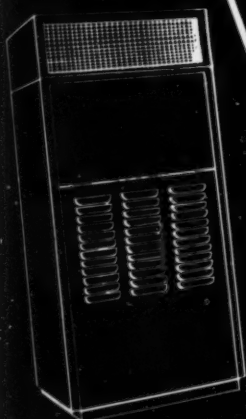
Now Barkow brings you new unlimited opportunity with both, **Air-Cooled** and **Water-Cooled** units for residential and commercial air conditioning! Sizes range from two to five-ton capacity . . . are available as self-contained units or without plenum and blower. Features include one and three-phase hermetic compressors; counter-flow cleanable

type condensers; aluminum fin evaporators with copper tube and capillary feed; specially designed expandable manifold; and new type switch control panels suitable for use with standard thermostats.

Aug. G. BARKOW Mfg. Co., Inc.
2230 So. 43rd St., Milwaukee 15, Wis.

YOU ARE *Invited*

to investigate the advantages
of a Barkow franchise and
to inspect the units in IHVACE
Booth # C-37.



CU-5
Water Cooled



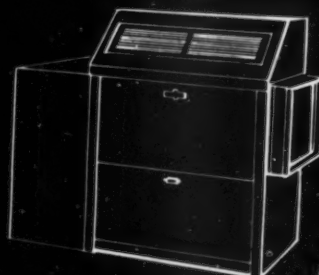
FU-2
Water Cooled



CU-3
Water Cooled



FU-3
Air Cooled



CU-3
Air Cooled

Presenting the New



Solenoid Gas Valve

Higher Capacity

The Crise Solenoid Gas Valve has been designed to combine performance, ruggedness and simplicity for long, trouble-free service on all types of gas fired heating equipment. A soft seat is accurately centered by an improved design to assure positive shut-off and quiet operation. Corrosion-resistant parts make the Crise SV-100 and SV-110 suitable for use with all types of gases. Available in $\frac{1}{2}$ " and $\frac{3}{4}$ " sizes, 24 V or 115 V and with or without a manual opener. Write for bulletin.

Visit our booth at the 12th International
Heating and Ventilating Exposition

CRISE CONTROLS DIVISION



A Host of Features

- High Capacity
- Soft Seat Construction
- Quiet Operation
- Streamlined Design
- Positive Shut-off
- Corrosion Resistant
- Suitable For All Gases

COLUMBUS 16, OHIO

Distributed in Canada by Leland Electric Canada, Ltd., Guelph, Ontario



**"We have 1955's BIG opportunity
for you, Mr. Dealer!"**

"Airtemp has just completed its 20th year of progress in air conditioning. And now, entering 1955, the opportunity for heating dealers to progress with us is greater than ever before, because:

Most people know the Airtemp name, associate it with engineering leadership, have confidence in the products which carry it. (Airtemp is the name that will make your selling job easier in 1955!)

The new Airtemp Spacesaver furnace, with compact summer cooling coil added, reduces Year 'Round Air Conditioning to its simplest terms. In fact, all Airtemp furnaces function with Airtemp cooling to provide perfectly balanced Year 'Round Air Conditioning. (You can install heating plus cooling at twice the profit, or heating now and cooling later.)

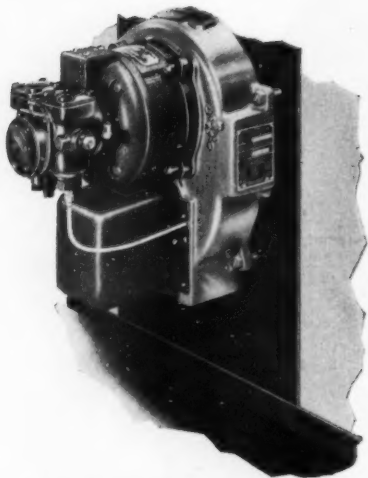
Factory testing, complete factory assembly, compact designs, front flue outlet and many other features of Airtemp Furnaces speed up installation. (You save valuable man-hours on every furnace job!)

Sound like the *BIG* opportunity for bigger profits for you in 1955? Then drop me a line today! I will personally see that you get all of the facts—*fast!*"

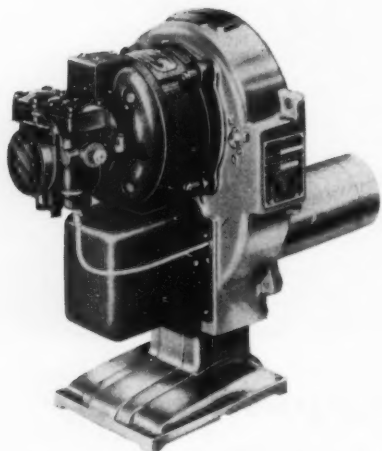
J. F. KNOFF
VICE PRESIDENT IN CHARGE OF SALES

AIRTEMP

DIVISION OF CHRYSLER, DAYTON 1 OHIO



"Plate-Mounted" for "Unit" applications .75 to 6.0 gph



"Conversion" companion to the "Plate-Mounted" .75 to 13.0 gph

way out **FRONT**

BECKETT

Engineered

Oil Burners

Distinctly different in design and Basic Principle of operation . . . A principle that represents the acme of simplicity, yet complete recognition of the requirements for excellence of combustion and low operating costs.

R. W. BECKETT CORPORATION

Elyria, Ohio

This all new modern Beckett manufacturing plant is the home of today's finest engineered oil burner.



HOW TO TRIPLE YOUR "LIVE" FURNACE LEADS

TIE IN TO "BERGER FURNACE with PERIM-A-BASE" UNIQUE PROMOTIONAL PLAN



*We'll help you LOCALLY
with a POWERFUL AD CAMPAIGN*

Now more than ever, you'll want to be a Berger Furnace Dealer—because we're offering a *local* selling program that can't miss. Use our one-minute TV pitch—it has "hard-sell" to bring you "live" replacement heating inquiries. We'll cooperate on a newspaper campaign to bring in more "live" ones. Mail a colorful Berger flier to your prospect list, and then back it up with free point-of-sale counter cards and a four page brochure. And Berger goes one step further—we provide concise guide-books to help your salesmen sell complete furnace and Perim-a-Base installations for really healthy profits.

BERGER FURNACES

Your customers will like everything about Berger warm air furnaces—the way they quietly supply clean, gentle warmth. Compactly manufactured of heavy gauge steel with a baked-on enamel finish, Berger furnaces look impressive . . . and they operate at low fuel cost because BERGER'S HEAT WRINGER principle (long flue passage with frequent restrictions) squeezes and uses every bit of heat. There's little maintenance needed on Berger furnaces—just sell 'em and forget 'em.

PERIM-A-BASE THE BEST ANSWER FOR COMBINATION HEATING-COOLING INSTALLATIONS

You'll be selling the only system that delivers convected and radiant heat, together with full circulation of clean fresh air, *plus* humidification or dehumidification as needed. And Perim-a-Base is as unobtrusive as a base-board. Backed by the Berger Furnace *local* advertising promotion, the Berger package—Warm Air Furnace and Perim-a-Base—must be a money-maker for you.

BERGER

FURNACE CORPORATION

*a respected name in home heating
for over 25 years*

BELLE VERNON, PENNSYLVANIA

YES, I'm looking for local promotional help.

☐ Send me more information

☐ Send your representative

DEALER'S NAME

STREET NUMBER

CITY

STATE

Comfort AND Alen

EVAPORATIVE COOLERS

Twins

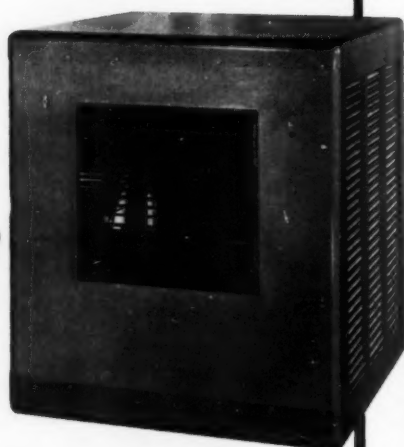
✓ IN QUALITY ✓ PERFORMANCE ✓ DURABILITY ✓ COOLING COMFORT
✓ LOW INITIAL COST ✓ LOW INSTALLATION AND MAINTENANCE



SPRAY-WHEEL TYPE AIR - WASHER

Offers exact guaranteed cooling efficiency.

The
FINEST
COOLING
OPERATION
With
LOWEST
OPERATING
COST!



DRIP-PAD TYPE EVAPORATIVE COOLER

Available in all standard capacities to meet every cooling requirement.



SPECIAL FEATURES:

- Flinger wheel does proper job of water atomizing
- Z-pad engineering design means cooler, filtered air always
- Pads rest on drain shelf which prevents return of water to lower pads (gives correct moisture content to entire pad area)
- Blower standard-frame motor equipped with variable-pitch pulley

Comfort and Alen Evaporative Cooler Cabinets of hot-dipped galvanized sheet metal

INTERIORS: entirely treated with etching type Zinc Chromate primer plus a coating of black, water-proof rust-resistant Mastic baked on. Areas constantly subjected to moisture specially treated for long life. Interior working parts treated with new, longer-life, rust and corrosion-resistant, vinylplastic finish baked on (found only in Alen and Comfort Coolers).

Manufactured and Distributed By

Comfort PRODUCTS CORPORATION

1705 SOUTH LAMAR STREET



DALLAS 2, TEXAS

THE PIONEER IN AIR COOLING WITH SPRAY-WHEEL TYPE AIR-WASHER EVAPORATIVE COOLERS

Sell More Heaters

THERE IS A JOHN ZINK HEATER FOR EVERY HEATING NEED

Prospects don't walk away when you show JOHN ZINK Heaters—they buy! For both home and industry JZ Heaters offer customers just what they need in heating: automatically controlled even heat, fuel economy, utmost safety, and quiet operation. JZ Heaters are available in four popular models and many sizes—upright or horizontal CENTRAL HEATERS, louvre or radiant WALL HEATERS, UNIT HEATERS and FLOOR FURNACES. All JZ Heaters are AGA approved for natural, mixed or LP Gas.



FLOOR FURNACE

OFFER YOUR CUSTOMERS
JZ BRAND HEATERS!



CENTRAL HEATER



UNIT HEATER



WALL HEATER



Why JZ Heaters Are Money Makers

HIGH PROFIT—JZ Heaters bring a high margin of profit because less time is spent selling customers. JZ Heaters almost sell themselves.

EASY INSTALLATION—JZ Heaters are known for their ease of installation, takes only a short time when compared to other heating units.

EASY TO SERVICE—While compactly and sturdily built, all parts of a JZ Heater are easily accessible. Rarely are parts replacements needed.

JZ Heaters in Four Popular Styles

FLOOR FURNACES. JZ gas fired floor furnaces are available in five conventional and short models with input ratings from 30,000 B.t.u./hr. They become a complete one-package heating unit when equipped with safety pilot and automatic temperature control.

CENTRAL HEATERS. Available in Vertical or Horizontal forced air models. Can be installed in attic, closet, basement, utility room, under the floor, or as a suspended unit. From 65,000 B.t.u./hr.

UNIT HEATERS. Model UHS Gas-fired, fan type suspended heater. Completely automatic. Available in two styles, attractively finished, quiet, safe and easy to install. From 44,000 B.t.u./hr.

WALL HEATERS. WH-25 Recessed Wall Heater fits standard 2" x 4" stud partitions on 16" stud centers. Barely 58" high. Available in standard or radiant styles.

Write For Free Literature

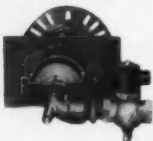
JOHN ZINK COMPANY

4401 South Peoria

Tulsa 5, Oklahoma

Easier to install . . . "Best by Heat Test"

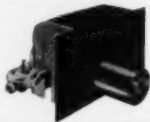
INSHOT GAS Conversion Burners



Speedy to install and service. Completely automatic! Convert oil-fired furnaces and boilers to gas heat. Model 4H (left) with burner tube only

7" long, 4-1/4" diameter, works

perfectly where average burner will not fit. Model 6H (right) with burner tube 7" long, 6" diameter. High BTU capacity.

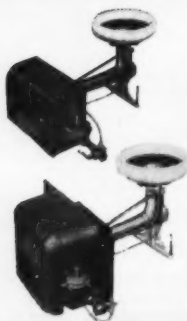


Beautiful New UPSHOT Tubular Steel Burner



America's most beautiful gas conversion burner! Factory assembled, complete in 1 package for fast, one-man installation. Durable, long-lasting, exclusive features! Adjustable in length and height. Competitively priced. Most popular size with 3/4" controls. Shipping wt. 32 lbs.

Superior Quality UPSHOT Cast Iron Burners



Designed to convert coal-fired units to gas. Adjustable to any size furnace. Completely automatic. Newest features for safe, dependable operation. Requires less gas to maintain temperature, lowering heating costs! (Also available in commercial sizes to 1,000,000 BTU input, less AGA approval.)

Water Heater Burners



Models for use with city or LP-Gas. Finest quality cast iron burners for safe, longer-lasting dependable service. Application of burners made to your equipment in our laboratories.

*first in quality
first in demand!*

ADAMS GAS CONVERSION BURNERS

Built for a lifetime of dependable service, Adams burners are first choice with contractors, dealers and leading furnace manufacturers! Adams features a complete line of finest quality burners for every possible use. Specification burners, adapted to your own specific application, are also furnished at low cost. Write for details.



**All Burners Carry Our
36-Month Factory Warranty**

Operates on City or Bottled Gas!

DUAL FUEL Gas Conversion Burner



During periods of gas shortage, outdoor temperature control changes burner from city gas to bottled gas! Assures adequate supply of fuel at all times. Exclusive automatic features. Durable, easy to install, long-lasting. Also Burners for LP-Propane Gas Only!

Incinerator Burners



For use with city or LP-Gas. Finest quality steel shield with stainless steel inshot burner. Long-lasting, dependable service.

Exciting News...

**ADAMS NEW DOMESTIC GAS POWER BURNER
IS ON THE WAY! WATCH FOR DETAILS!**

See your Jobber **TODAY** or write for prices on America's hottest line of burners!

Phone:
Superior
1-8325

ADAMS

MANUFACTURING COMPANY
1530 ST. CLAIR AVENUE • CLEVELAND 14, OHIO

...for **\$uccessful \$elling!**

★
AMERICA'S
BEST FURNACE
VALUE!
AMERICA'S
TOP
PROFIT
LINE!
★



HEATWAVE

GAS FIRED FURNACES

Build Additional Sales and Maintain Goodwill

★
Compare Heatwave with
any other line —
PERFORMANCE-WISE!

★
Compare Heatwave with
any other line —
PROFIT-WISE!

★
No other line of heating
equipment offers such a
great combination of
SERVICE and SALES APPEAL!

EVERY HEATWAVE MODEL:

- Factory Assembled
- Fire Tested
- Ready to Install
- Competitive in Price
- Cast Iron Burners
- Smart in Appearance
- Economical to Operate
- 10-Year Factory Warranty


Southwest manufactures a complete line of 2 and 3-ton Residential Air Conditioners for use as companion units with any Forced Air Furnace.



The HEATWAVE
COUNTER-FLO ...

BTU
Input
80,000
100,000
120,000

for perimeter and under floor heating; can be installed in closet, alcove or utility room with minimum of duct work. Very economical installation.



New,
Improved,
**VENTED RECESSED
WALL HEATER**

BTU
Input
Single Wall 27,500
Dual Wall 35,000
45,000

Finest Heatwave quality, fits in 16" centered stud spacing. Ideal for homes, apartments, offices, stores and motels. Minimum installation cost.



The HEATWAVE HORIZONTAL ...

BTU
Input
60,000
80,000


for space saving installations in homes without basements; installs in attics, under floors, in service porches, attached garages; suspends from joists in homes with basements.



The HEATWAVE FLOOR FURNACE ...

BTU
Input
27,500
35,000
50,000
65,000 75,000

accomplishes the long-sought objective in floor furnace manufacture: **QUIET** operation, combined with efficiency, economy and long life.



The HEATWAVE HI-BOY ...

BTU
Input
80,000
100,000
120,000
140,000
160,000

designed to meet the need of better home heating at lower cost. Completely automatic. Built-in draft diverter. Cast iron burner.

WRITE OR WIRE — GET THE FACTS



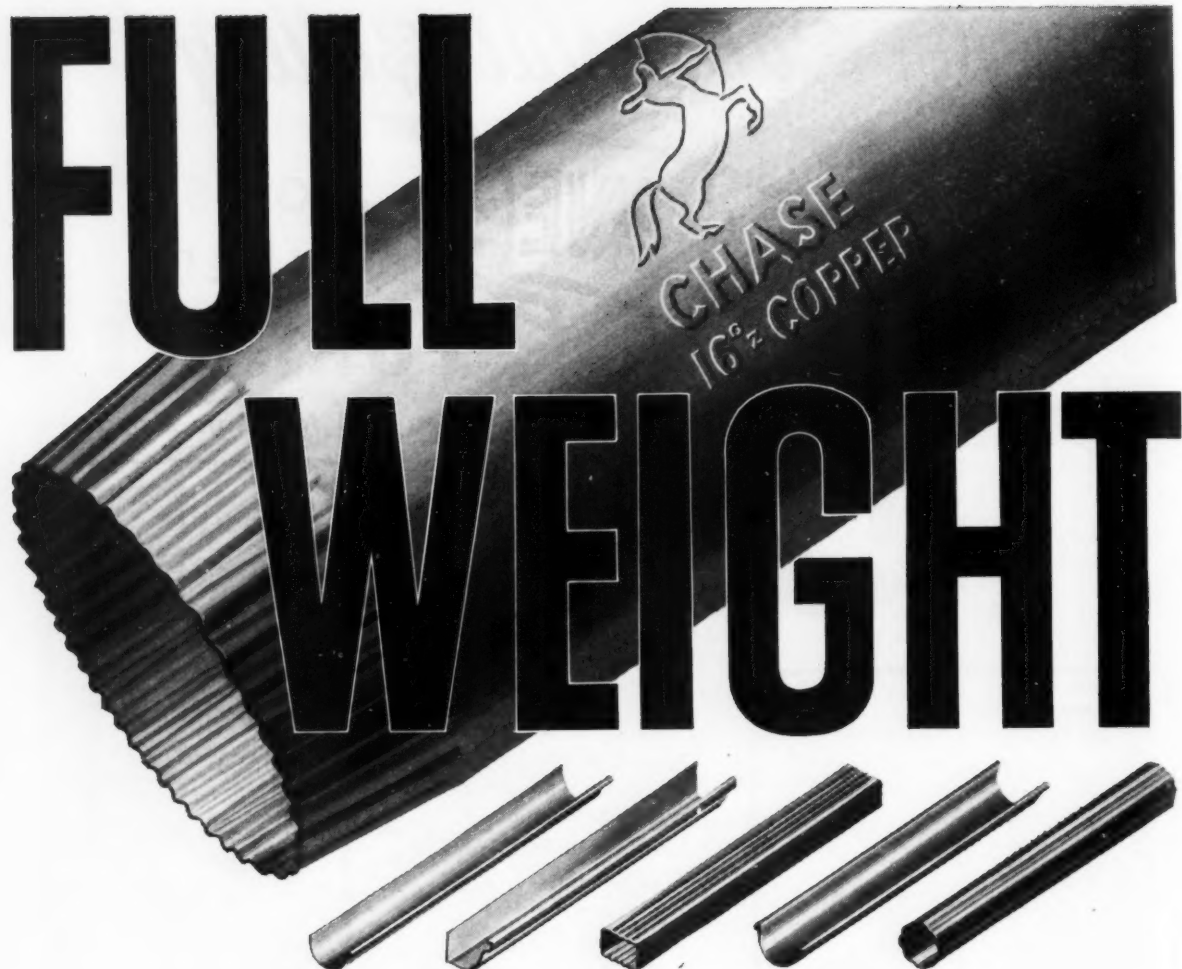
SOUTHWEST MANUFACTURING COMPANY

BOX 28

Subsidiary of the F. E. Myers & Bro. Co.

AURORA, MO.





**Chase® copper roofing products are
16 ounce copper or heavier—last years longer!**

When you choose roofing products, look for the die-stamped Chase Trade Mark and Weight Stamp—your assurance of quality, stability and permanence.

To withstand the weight of snow and ice, Chase copper downspouts, gutters, elbows and shoes are all 16 ounce copper or heavier. All corrugations are deep and generous... ample for temperature changes in *any* climate.

Chase copper leaders are formed from full-width strips, to assure strong, expansion-proof seams. And, since Chase copper roofing products can be joined with standard soldering techniques, the installation will *stay* water-tight and leak-proof *for good*.

Chase copper roofing products simply *can't* rust, will resist atmospheric and weather conditions that ruin less durable materials. So insist on *Chase* copper roofing products.

For more information on copper roofing products and flashing, send for the free Chase Copper Roofing Products Booklet.

Chase 

BRASS & COPPER CO.

WATERBURY 20, CONNECTICUT • SUBSIDIARY OF KENNECOTT COPPER CORPORATION

The Nation's Headquarters for Brass & Copper (shows office only)

Albany†	Chicago	Denver	Indianapolis	Minneapolis	Philadelphia	St. Louis
Atlanta	Cincinnati	Detroit	Kansas City, Mo.	Newark	Pittsburgh	San Francisco
Baltimore	Cleveland	Grand Rapids†	Los Angeles	New Orleans	Providence	Seattle
Boston	Dallas	Houston	Milwaukee	New York	Rochester†	Waterbury

when it comes to automatic heating and cooling...

REMEMBER

these 4 important points

HEIL OFFERS A COMPLETE LINE!

No matter what your customer's purpose or purse . . . HEIL has a highly efficient unit to fill *any* warm air need. Your customer can choose from 12 oil furnace-burner units, 14 gas furnace-burner units, 5 conversion oil burners and 6 conversion gas burners, when you offer the *complete* HEIL line!



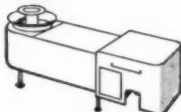
12 Oil Furnace-Burner Units
Bonnet Capacities from
84,000 to 224,000 BTU



14 Gas Furnace-Burner Units
A.G.A. Input Ratings from
80,000 to 140,000 BTU



5 Conversion Oil Burners
Maximum Unit Output Ratings
from 162,000 to 592,000 BTU



6 Conversion Gas Burners
A.G.A. Input Ratings from
87,000 to 300,000 BTU



12 Summer Air Conditioners
Rated from
24,000 to 36,000 BTU

HEIL OFFERS A DEPENDABLE LINE!

HEIL's *proved* better combustion, better firing, better heating and better operation . . . meticulous factory assembly and inspection . . . and famous reputation for dependability mean you sell the *very finest* when you sell HEIL warm air heating equipment.

HEIL UNITS ARE EASIER TO SELL!

HEIL's famous name and advanced features sell warm air heating units *fast*, but HEIL guarantees additional sales with consistent advertising and constant product development for tomorrow's sales. And consistent customer satisfaction builds a reputation for you that means bonus future sales. HEIL units, too, are completely guaranteed and fully approved for safety with the A.G.A. and UL label.

HEIL HELPS THE WHOLESALER HELP YOU!

Your HEIL wholesaler helps you save money by reducing your buying, stocking, inventory and business expenses. That's why HEIL supports him to the fullest measure.

THE HEIL CO.

Milwaukee 1, Wisconsin

Hillside, New Jersey

SALES OFFICES: New York, N.Y.; Union, N.J.; Atlanta, Ga.; Cleveland, Ohio; Chicago, Ill.; Milwaukee, Wis.; Kansas City, Mo.; Denver, Colo.; Dallas, Texas; Los Angeles, Calif.; Seattle, Wash.

REMEMBER these four highly important points when you choose a heating and cooling line...look first to HEIL, first in heating!

Write us for details concerning HEIL Automatic Heat.

The Heil Co. is a member of OHI, GAMA and an associate member of NHTA.

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WE SPECIALIZE IN GENUINE REPAIRS

THE COMPLETE HEATING SUPPLY HOUSE

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BLOWERS
CLEANERS
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FURNACE CEMENT
FURNACE PIPE
FURNACES, ALL FUELS
GAS BURNERS
HUMIDIFIERS
METAL SCREWS
OIL BURNERS
SMOKE PIPE

REGISTERS
ROOF COATINGS
SMALL TOOLS
STOKERS
UNIT HEATERS
VENTILATORS
WATER COILS
WATER HEATERS
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OUR INSULATION DIVISION

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Millboard
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Distributors for such well known brands as

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"FIBERGLAS" "KAYLO" & "ULTRALITE"

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A. G. BRAUER SUPPLY CO.

2100 WASHINGTON AVE.

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One clean stainless 'job may sell *many more*

When cleaned properly, Armco Stainless Steel will keep its "just new" look for the life of an installation.

This means that each job you do is more likely to please the customer and sell other jobs, too—if the stainless is cleaned before it leaves the shop and *kept* clean after it is installed.

In the shop, dirt and grease should be wiped off with a solvent before stainless is welded or soldered. Of course, all flux must be scrubbed and washed away after soldering. Dirt, fingerprints and oily stains are easily removed after finishing operations with a detergent and water or other simple cleaning solutions.

Help for Customers

In service, stainless steel should be cleaned regularly for best results. A few words of advice to your customers will help assure a lasting attractive appearance.

You can obtain complete information, both for yourself and your customers, from Armco's new fabricating data bulletin, "Cleaning of Stainless Steel." Just fill in and mail the coupon for your free copy.

ARMCO STEEL CORPORATION

795 Curtis Street, Middletown, Ohio



Armco Steel Corporation
795 Curtis Street
Middletown, Ohio

Send me a copy of your fabricating data bulletin,
"Cleaning of Stainless Steel."

Name

Company

Street

City Zone State



SHEFFIELD STEEL • ARMCO DRAINAGE & METAL PRODUCTS, INC. • THE ARMCO INTERNATIONAL CORPORATION

Save Costly Labor Hours

**AMAZINGLY LOW-PRICED BETT-MARR
BAND SAWS CUT PRODUCTION COSTS
—PAY FOR THEMSELVES QUICKLY**

No Blade Chatter
At Any Speed



MODEL 24S—3 wheel band saw with 24" throat; 100 to 3000 FPM blade speeds; cuts 50 to 70 stacked aluminum or galvanized sheets; also iron, bronze, copper, steel castings and forgings, wood, plastics, and stainless steel. Ht., 61"; depth, 44"; width, 22"; table, 20"x22"; crated shipping wt. with motor, 479 lbs.



Perfect Blade Control Assures Smooth Radius and Perfect Straight Line Cuts

Blade Will Not Slip Off Wheel in Operation

MODEL 14SM—2-wheel band saw with 13½" throat; 100 to 3000 FPM blade speeds; cuts 50 to 70 stacked aluminum or galvanized sheets; also iron, bronze, copper, steel castings and forgings, wood, plastics and stainless steel. Height, 62"; depth, 34"; width, 22"; table, 20"x22"; crated shipping wt. with motor, 377 lbs.

Rugged Bett-Marr 3-Wheel Saw Has 24" Throat—Cuts 50 to 70 Stacked Sheets

Designed especially for stacked sheet metal cutting, this amazing new Model 24S 3-wheel band saw with 24 inch throat will make center cuts on sheets up to 48 inches wide. It's big enough to do most any job—small enough to fit most any space—and costs much less than any comparable saw.

Low Cost Bett-Marr 2-Wheel Saw Outperforms Saws Costing 6 Times as Much

Bett-Marr Model 14SM, a 2-wheel sheet metal band saw, has a 13½ inch throat, but will do everything its big brother will do, except accommodate the larger sheets. Both models have quickly adjustable blade speeds for cutting metal, wood, and plastic without blade chatter. With a Bett-Marr saw you can actually produce ductwork pieces 6 to 12 times faster than by hand cutting methods.

BETT-MARR MFG. CO.
HOPKINS, MINNESOTA

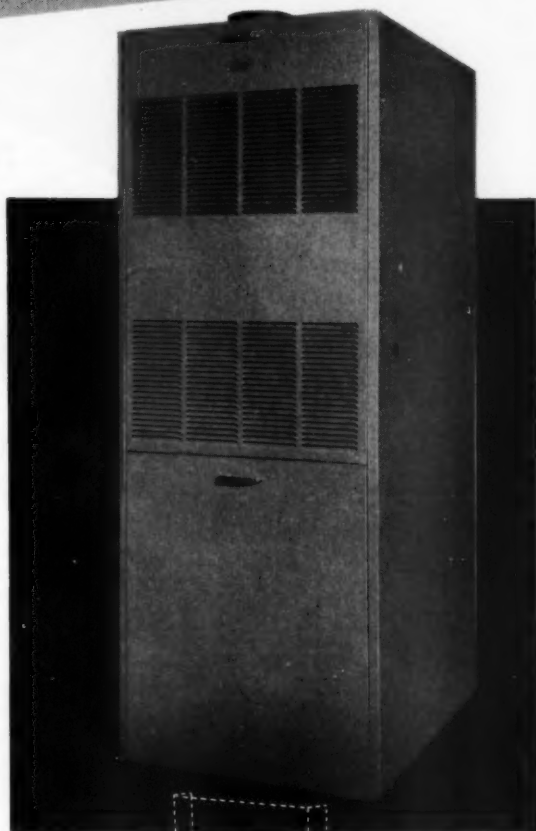
Let's make it **COZY**

IN '55

1955 is going to be a **Cozy** year! It means that it will be a banner year for your gas-fired furnace sales if you're selling the **Cozy** line. Increased demand has forced the Advance Furnace Company to increase its production, and now, more homes are being comfort fitted with **Cozy** than ever before. When you're selling **Cozy**, you know that you're selling quality backed by over a quarter century of experience...and you know that whether you're selling to an individual or to a volume purchaser that you can offer a competitive price. Investigate the complete **Cozy** line, and in 1955 tell your customers to get **Cozy** for cold-weather comfort.

COZY FORCED-AIR FURNACES

Available in either upflow or counterflow models of 140,000, 105,000, or 75,000 BTU input capacity. Equipped with exclusive "Curvic" heat wringer. Completely assembled for easy installation. These models use either the new 4" piping or the regular ductwork, and will fit practically any home, new or old.

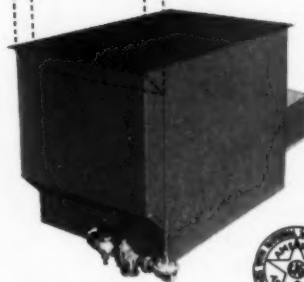


COZY WALL HEATERS

Volume sales are yours with this efficient **Cozy** Wall Heater. Available in four capacities and for single or dual installation with individual controls. No waste in floor space. An efficient burner, large heat exchanger surface and large air capacity are the leading features. Ideal for small homes, motels, hotels, offices, stores, and apartments.

COZY CHALLENGER FLOOR FURNACE

You're equipped to fit most any home with this best buy in Floor Furnaces...the **Cozy** Challenger. You can offer such features as accessibility to the controls by removing grille and sliding end panel, heavy-gauge steel heat exchanger, heavy, unbreakable steel grille, shallow outside casing, removable inner jacket and ten-year warranty.



Ask about our high-profit, year-around sales plan

COZY

See Your Distributor... or Write Direct Today

The ADVANCE FURNACE CO.
Wichita, Kansas

Announcing

A NEW DIRECT-DRIVE BLOWER

The Center-Motor-Mount

REX TWIN-WHEEL

**EFFICIENT, QUIET OPERATION
FOR HEATING, COOLING, VENTILATING**

Air Controls, Inc. marks almost a quarter of a century of air moving experience with the proud presentation of the finest blower engineering accomplishment available today!

Here, at last, is a simplified, universal blower with more benefits and none of the drawbacks of conventional direct-drive units.

Only the unique, compact REX direct-drive, twin-wheel blower can bring you *all* of these desirable engineering and merchandising features:

CENTER MOUNTED, SELF SUPPORTED MOTOR

- Places less stress on wheel shafts and motor
- Guarantees balance and permanent wheel alignment
- Leaves both inlets free of obstructions
- Airflow cools motor for increased life-expectancy
- Solidly anchored motor eliminates strain, wear and vibration

SIMPLIFIED, FUNCTIONAL DESIGN

- Operating parts balanced before assembly
- Troublesome drive-belts eliminated
- No pulley wheels to lower efficiency; get out of alignment
- Improved outlet velocity distribution from twin wheels
- Engineered to satisfy a wide range of pressure-volume requirements

EASIEST TO INSTALL

- Compact shape . . . no protruding motor
- Mounts in any position
- Supports and hangers eliminated
- Furnished with rigid, cushioned blower outlet angles
- Serves as resilient mount for all-angle discharge

**THIS IS THE
DIRECT-DRIVE BLOWER
YOU HAVE BEEN WAITING FOR!**

WRITE FOR FULL INFORMATION

TODAY!

AIR CONTROLS, INC.

Division of THE CLEVELAND HEATER CO.

2310 Superior Ave. • Cleveland 14, Ohio

A 797



JUST MY EXTRA PROFITS
ON G-E HOME COOLING
BUSINESS PAID FOR MY NEW CAR
... AND MY HEATING SALES
ARE UP TOO SINCE I
SWITCHED TO G-E

Good things happen when you "sign up" with G.E.

New '55 models don't grow on trees. And simply by "signing up" with G.E. doesn't mean you will find heating and cooling prospects breaking down doors to place an order.

On the other hand, you'll find that the good things in life come a lot faster and easier... when you have that G-E monogram over the door of your shop.

The advantage is yours... because folks everywhere have confidence in G.E. You sell a full line — a line designed to meet every home heating and

cooling need! As if that weren't enough, there's a famous warranty that gives you and your customers more protection than anything you've seen yet — 5 years on the sealed-in system of the cooling unit, for example.

If we've whetted your appetite... if you want to find out how you can get in on the fast-moving G-E picture... just send the coupon below. Learn about the great G-E line and the new G-E "Charlie Boggs" Profit Plan. Obligation? None at all. Except the one to yourself, and to your future.

HOME HEATING & COOLING DEPT.

Progress Is Our Most Important Product

GENERAL  ELECTRIC

General Electric Co.—Home Heating & Cooling Dept. AA-1
Bloomfield, N. J.

Yes, I want the facts on why "signing up"
with G. E. will step up my sales and progress.

Name _____

Type of Business _____

Address _____

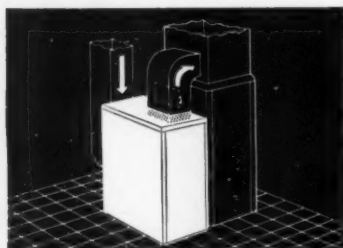
City _____

Zone _____

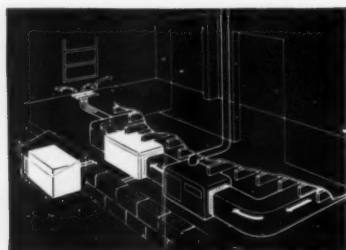
State _____

Now you can add summer cooling to heating installations with the new Multi-matic Frigidaire Conditioner

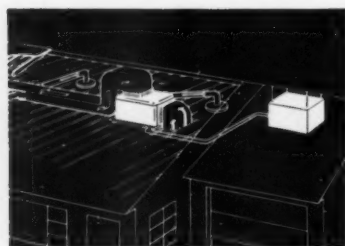
Here's the answer to residential air conditioning profits—all wrapped up in one compact, versatile package. The new Multi-matic Frigidaire Conditioner is completely flexible to fit a wide range of applications. It's easy to install—readily adaptable to forced warm air systems or can be used as a separate air conditioning unit. It's efficient, quiet running, dependable, for real user satisfaction.



Install it with a forced-air furnace



Install it in a crawl-space with condensing unit remote, using furnace blower



Install blower and coil section in attic with condensing unit in garage

The new Multi-matic Frigidaire Conditioner has been engineered from the ground up for installation and service simplicity. This simple, compact, space-saving unit contains compressor, cooling coil, condenser and blower. Two, three and five-ton models are ready to hook up with a furnace or operate

**THIS CAN PUT YOU IN
THE PROFITABLE AIR
CONDITIONING BUSINESS**

Get all the facts at the
Heating and Ventilating
Show, Philadelphia,
January 24-28

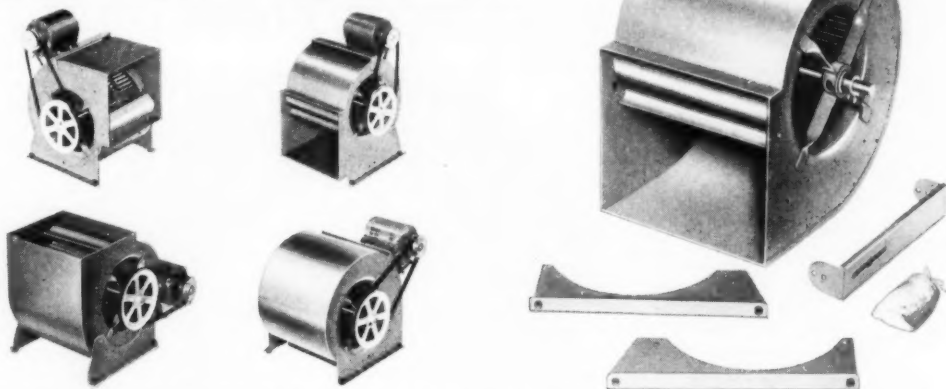
alone. Where the furnace blower is adequate the unit can be furnished without blower. And it can be supplied with less water-cooled condenser for use with air-cooled or evaporative condensers as well.

The Multi-matic and Year Round Frigidaire Conditioners can be your surest, fastest way to get your share of this profitable new market—today and in the future. Write Frigidaire, Dayton 1, Ohio, for complete details. In Canada, Toronto 13, Ontario.

Frigidaire Conditioners

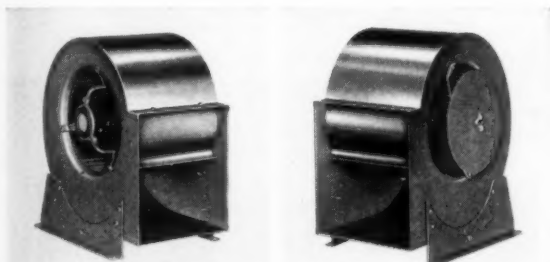
BUILT AND BACKED BY GENERAL MOTORS

SOLVES 80% OF YOUR PRODUCTION REQUIREMENTS

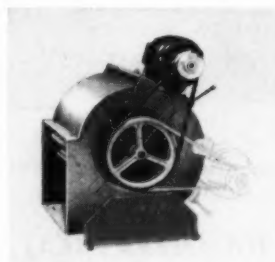


**YOU CAN MEASURE THE
VALUE IN ADDED PERFORMANCE
AND DIRECT SAVINGS
IN YOUR PLANT**

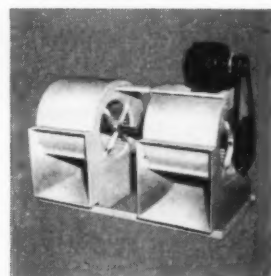
HERE IS PRODUCTION FLEXIBILITY such as you've never known before. Each Brundage Universal Blower mounts in 8 discharge angles. Each unit serves all requirements for its particular size. You lower inventories. Assembly techniques are simplified. And, changes in your production run require less down-time. You profit at every step where blowers are used . . . and Brundage quality compliments your finest product.



DIRECT DRIVE BLOWERS. Perfect for modern, compact heating and cooling equipment. Direct Drive Blowers provide maximum output in the smallest space . . . and cut costs by eliminating parts. Exclusive Volume Control Damper requires no electrical components . . . provides balanced delivery at lowest cost. Available in all standard discharges.

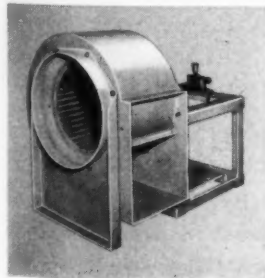


SERIES 'X' & SERIES 'T' BLOWERS. Twelve sizes to fit all domestic and many commercial heating and cooling applications . . . up to 5,000 CFM capacity per wheel. Single or multiple wheels available. Every wheel balanced before assembly. One-piece bridge motor mounts, self-aligning bearings. ("Life-time" lubricated bearings optional).



BLOWER-FILTER PACKAGE UNITS.

Stocked in 7 sizes for furnaces ranging from 40,000 to 225,000 BTU output. Air handling capacities to 3,200 CFM at $\frac{1}{2}$ " static. Door provides access to blower and filters. Belt or direct drive models. Motor has over-load protection.



BLOWER-EXHAUSTERS. For industrial and commercial ventilation, fume, and smoke removal. Readily adapted to induced-draft systems . . . indoor and outdoor applications. Single-width, single-inlet design maintains higher static pressure, affords faster air removal, quiet operation.



Phone Kalamazoo 2-0251 for test samples and complete technical data. Your own evaluation will prove Brundage quality and performance.

Blower specialists since 1919

THE BRUNDAGE COMPANY

504 NORTH PARK ST.
KALAMAZOO, MICHIGAN

THE *Caldwell* HAMMER KIT

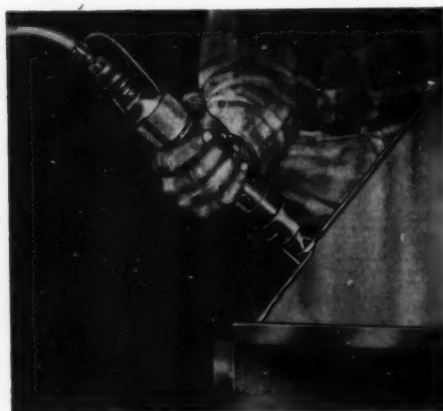
SAVES TIME — SAVES LABOR
FOR SHEET METAL DUCT FABRICATORS



THE CALDWELL HAMMER KIT

**CALDWELL HAMMERS SEAL
 PITTSBURGH LOCK SEAMS WITH
 SPEED AND SMOOTHNESS**

In addition the Caldwell Hammer is used for chipping, drilling, gouging, small riveting, cutting, scaling, caulking, etc. Tools, attachments, accessories and compressors for use with Caldwell Hammer also available.



CALDWELL HAMMER SEALING
 PITTSBURGH LOCK SEAM

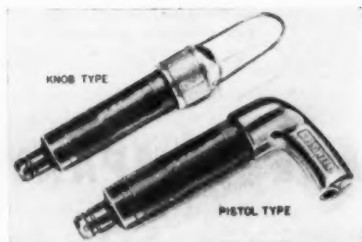
WRITE FOR COMPLETE DETAILS

BURGESS THOMAS COMPANY

BOX 287

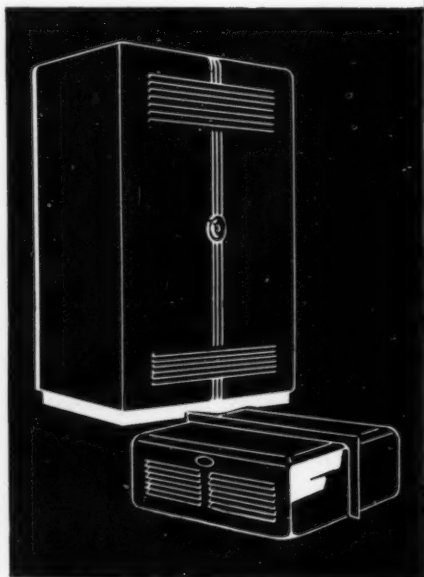
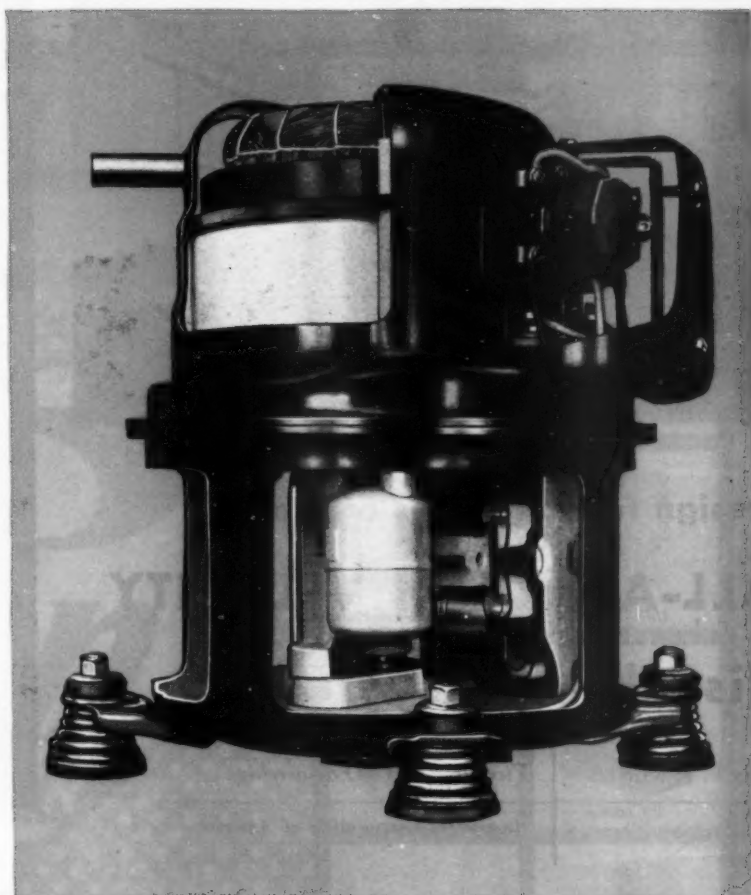
BLOOMFIELD, NEW JERSEY

Bloomfield 2-4018



COPELAND WELDED HERMETICS

bring
cool-running,
2-cylinder
smoothness
to
package
air conditioning



You're looking at a cutaway view of the welded motor-compressor that can give your refrigeration and air conditioning products the competitive edge you need.

This potent Copeland package is engineering at its best. Twin cylinders bring whisper-quiet smoothness. Heavy-duty, high power factor motor insures positive performance and long-range economy. Use of F-12 in these motor-compressors can result in as much as 75 F. lower temperatures in windings, crankcase, oil and discharge side. You'll appreciate their high capacities.

We could go on, point by point, and prove construction superiority. Better yet, we want you to test the Copeland welded motor-compressor in your own equipment under your own conditions.

Write, wire or phone for details about the "try it yourself" test.



REFRIGERATION UNITS (OPEN-TYPE AND COPELAMETIC) WATER COOLERS

Copeland
DEPENDABLE *Electric* REFRIGERATION



COPELAND REFRIGERATION CORPORATION

SIDNEY, OHIO



Design fundamentals of the **ALL-AIR HIGH VELOCITY** distribution system

By F. J. KURTH

Vice President of Engineering

Anemostat Corporation of America



A national survey reveals that today, more than ever, engineers are studying, learning and using high velocity-high temperature differential air distribution. Here is a brief discussion of the advantages of the all-air high velocity system over conventional and mixed cycle (air and water) systems.

1. No Coils—No Clogging—No Odor—There are no coils in the all-air high velocity units. Damp coils collect lint and emit dank odors, and the coils must be cleaned periodically.

2. No Individual Fans—Filters—or Electric Motors—The all-air units operate entirely with air which is processed in the main equipment rooms. The 100% induction units utilize the kinetic energy of the high velocity air to mix primary air with the room air.

3. No Conflict of Trades—The all-air units are installed by the sheet metal trades only.

4. More Effective Use of Outside Air in Spring and Fall—More primary air is delivered to the all-air units than to induction coil units. This allows the engineers to operate in the Spring and Fall on outside air and thereby save refrigeration.

All-air high velocity units offer scientific air diffusion. Each high velocity unit is provided with an aspirating or high induction type air diffuser which is scientifically designed to diffuse air without drafts. Each unit can be pressure balanced by an easy-to-operate balancing device and a calibrated orifice. In fact, the Anemostat all-air high velocity system can be balanced more accurately than other systems and in less than half the time required to balance a low velocity system.

High velocity units require practically no maintenance after installation. They have valves of the non-corrosive, die-cast, "rocket-socket" type, which are patented by the Anemostat Corporation of America. All units can be adapted for the following variations:

1. Single duct for zone control or individual thermostatic or manual remote control.
2. Dual duct for thermostatic control or any other type of control.
3. Single or dual duct units with the diffuser fastened to the unit, or remote from the attenuating unit.
4. Under-the-window, sidewall or ceiling type installations.
5. Can be provided with standard aspirating diffusers or 100% induction type diffusers.
6. Induction type units handle temperature differentials up to 33° below ambient.

Selection Manual Contains Data on High Velocity Units

New Selection Manual 50 gives extensive selection and application data on high velocity all-air distribution systems. Write on your business letterhead for

Selection Manual 50 to the Anemostat Corporation of America, 10 E. 39 Street, New York 16, New York.



here's the line
you need...



V-5000 OIL



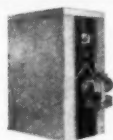
V-5000 GAS



V-5000C OIL



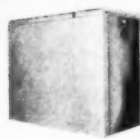
V-5000C GAS



G-6000 GRAVITY



H-5000 GAS



H-2000 OIL



H-5000 OIL



S-5000
HORIZONTAL



COMBINATION
HEATING & COOLING

to MEET and BEAT competition

You'll find closing sales a cinch with SUN Fuel-Master winter and summer air conditioners. It's a complete line . . . high-boys, lo-boys, counterflows, conversion burners, air conditioners, suspended units . . . all from one convenient source, and all designed for quicker, lower-cost installations. Even more important, *it's a line priced right for competitive selling.* Why not find out all about this profitable line now!

See our display at the International Heating and Ventilating Exposition, January 24-28, Philadelphia. BOOTH No. 110

J. V. Patten Company
SYCAMORE, ILLINOIS, U.S.A.

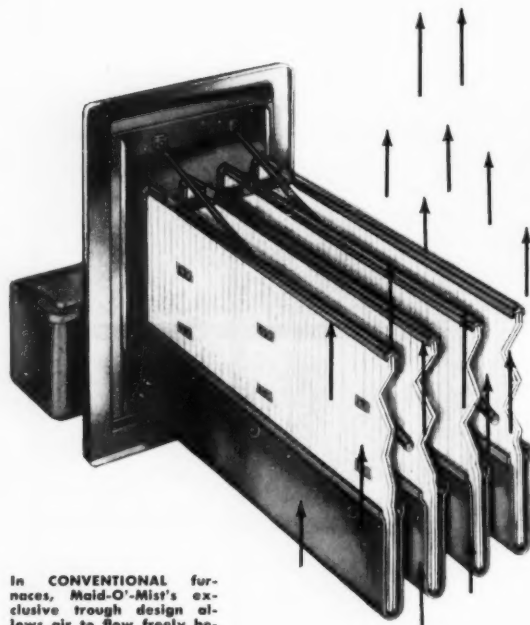
ESTAB. 1898 • INC. 1928



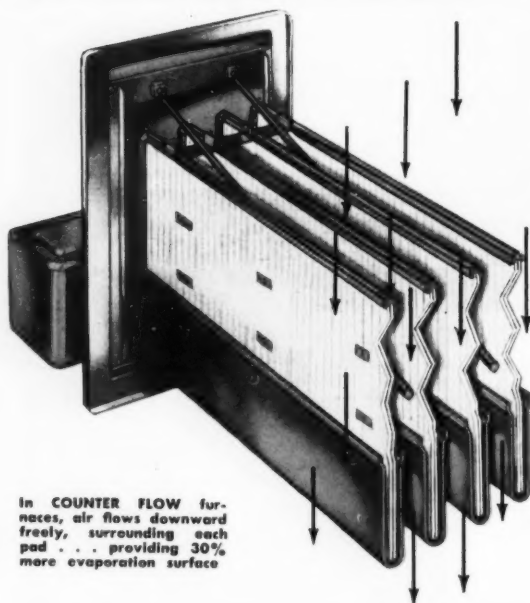
Write Today...

Get all the facts on this master-selling, profit-packed SUN Fuel-Master line. We have complete literature available for study and comparison . . . so write today!

Conventional or Counter Flow!



In CONVENTIONAL furnaces, Maid-O-Mist's exclusive trough design allows air to flow freely between evaporator pads



In COUNTER FLOW furnaces, air flows downward freely, surrounding each pad . . . providing 30% more evaporation surface

MAID-O'-MIST

CONVECTOR

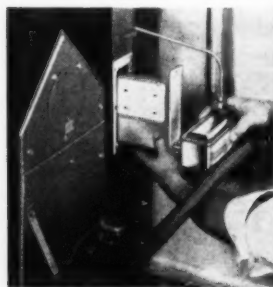
HUMIDIFIER

is the **ONLY** standard unit that fits **BOTH TYPES** of warm air furnaces

This versatile convector humidifier is ideal for the small plenums of all modern warm air furnaces . . . conventional, counter flow and year-around air-conditioning units.

Unlike ordinary warm air furnace humidifiers, the Maid-O-Mist has no flat bottom to block the flow of warm air. Maid-O-Mist's exclusive design—individual $\frac{3}{8}$ " copper water troughs spaced 1" apart—allows unrestricted air flow between patented evaporator pads . . . provides 30% more evaporating surface necessary in short-cycle modern heating.

Maid-O-Mist's design makes installation easy. There's no fitting or fastening to the back of the plenum. The unit is entirely supported by the flange frame in front.



FOR COUNTER FLOW WARM AIR FURNACES



FOR CONVENTIONAL WARM AIR FURNACES

Maid-O-Mist, because of its narrow trough design, can be installed on either side of counter flow furnaces having a minimum air passage of 3 inches.

Installation is fast and easy. Just cut opening in plenum and make water connections. 13 sizes available with evaporation capacities of 1 to 10 gals. per day.

60%

LESS AIR RESTRICTION IN PLENUM

30%

MORE EVAPORATION AREA

50%

LESS INSTALLATION TIME

Get full information on these competitively-priced units from your jobber or write for Bulletin 701-B



AUTOMATIC HUMIDIFIERS AUTO-VENTS
WATER LINE CONTROLS . HEATING SPECIALTIES

MAID-O'-MIST, Inc.

3217 NORTH PULASKI ROAD . CHICAGO 41, ILL.

WHEELING'S

Conductor
Pipe

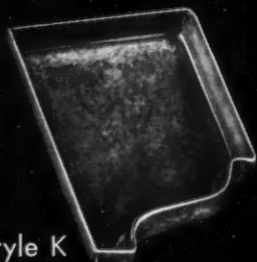
Flat Apron
Corner Bead

Expanded
Corner
Bead

NEW



Coal Hod Bottom



Style K
End Cap

Oil Can
Spout



SOFTITE

TRADE MARK

**GALVANIZED SHEETS
PERMIT ALL THIS (AND MORE)
WITH NO CHIPPING OR
FLAKING OF COATING!**

The reason for the remarkable workability of Wheeling SoftTite is that it is ductile and tight coated to a most amazing degree. As a result, it forms freely and easily, with no strains in the zinc coating, no chipping or flaking of coating.

This versatile combination of a soft, ductile steel base and an incomparably tight zinc coating represents a signal achievement in sheet steel metallurgy. For not only is it manufactured by a new and revolutionary

process* perfected by Wheeling engineers, but it also achieves the long-sought qualities and characteristics unobtainable in the past by any process.

The users of Wheeling SoftTite Galvanized Sheets have acclaimed them the ultimate in continuously coated galvanized sheets.

See if you don't agree. Call or write the nearest Wheeling warehouse or office for working samples.

*covered by
U.S. Patent
No. 2,647,305

WHEELING CORRUGATING COMPANY • WHEELING, W. VA.

Atlanta Boston Buffalo Chicago Columbus Detroit Houston Kansas City
Louisville Minneapolis New Orleans New York Philadelphia Richmond St. Louis





10 GOOD REASONS why your customers will like Regulaire!

"When your toes are cold," said one sage, "you wish you had fewer than ten of them." Truly warm floors (and toes) is the big reason why your customers will be happier with a Perfection Regulaire* furnace.

Regulaire eliminates the "blow hot—blow cold" discomfort of ordinary on-off furnaces. It has a regulating vane that automatically insures a smooth flow of continuous warmth for all-over comfort, all the time. With Regulaire's constant air circulation, floors *can't* get cold.

Regulaire is simple and service-free—virtually ends call-

backs. Only Perfection furnaces have Regulaire. It's today's big difference in furnaces that can help you close the sale. So this year, why not *increase your share—with Regulaire!* Perfection Stove Co., 7616-A Platt Ave., Cleveland 4, Ohio.

*PAT. PEND.

Perfection

YOUR HOME DESERVES

ASHVE Show
Philadelphia, Booths 18-38

Thermo-Base

EXTENDED BASEBOARD AIR DISTRIBUTORS

offer the Dealer
today's most improved system
for HEATING and COOLING
HOMES!

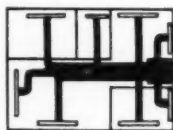


EASY TO SELL! . . . because it takes the forced air "feel" out of the forced air system.

Thermo-Base gives perfect "living comfort" in every room in any weather. There are no concentrated blasts of air, no hot zones at the ceiling, no cold layers on the floor and no frigid fringes along the walls. Thermo-Base delivers both *radiant* and *convected* heat that is *humidified* and *filtered*. The simple styling of Thermo-Base lends a touch of good design to any interior and allows *complete freedom for furniture arranging*. Full length drapes do not interfere with operation. The cost of a complete Thermo-Base installation is comparable to that of a conventional warm air system.

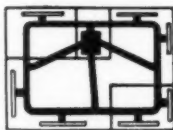


ADAPTABLE TO ANY TYPE OF STRUCTURE!

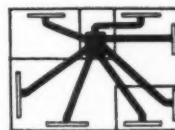


Basement

Thermo-Base is adaptable to *any* type of construction and any home, *old or new*. They are located on exposed walls under windows. Perimeter loop, radial feeder, individual pipe or trunkline duct systems may be used. Usually one central return air will be adequate. No roughing-in necessary.



Concrete Slab

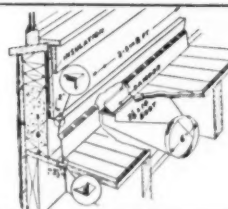


Crawl Space

EASY AND QUICK TO INSTALL!



The illustration at right shows one way Thermo-Base may be easily installed in new construction. It is equally adaptable to old. It take *only a few minutes* to install Thermo-Base against studding, plaster board or plaster and may be set on subfloor or finished floor.



Thermo-Base . . .

. . . AVAILABLE IN 8, 5 and 3 ft. LENGTHS!

There is a complete range of units for easier, quicker installation. When desired, they can be combined for continuous coverage. Thermo-Base units are finished in a prime coat and may be painted to match the decoration after they are installed.

Super Thermo-Base is specifically designed to produce the greater volume of delivery required in larger installation. Available in 8 foot lengths only.

Thermo "30" Diffuser, America's lowest priced baseboard diffuser is available for highly competitive jobs. Available in 30 inch lengths only.

NEW FREE CATALOG makes any dealer a heating and cooling expert!

Send for your copy today . . . just drop us a line on your letterhead!

GERWIN INDUSTRIES, INC., Michigan City, Indiana



Fact:

NEW "Package" Precipitron Features

Movable Nozzle Washing and Adhesive Application

2,000 to 10,640 CFM - 12 SIZES - ONLY 38 INCHES LONG

Another "First" from the Sturtevant Division of Westinghouse—the Type PC Precipitron—it's the "packaged" unit you have been looking for. An outstanding addition to the most complete line of air handling and air cleaning apparatus.

This remarkable unit features movable nozzle washing—the only successful and practical method of mechanical washing—and power adhesive spraying with movable nozzles. This eliminates need to open the unit or apply adhesive by hand. It may be mounted on floor, platform or ceiling, has built-in drain pan facilities, after filters and complete enclosure, including duct flanges.

Service is easy. The PC Precipitron has either right or left hand access through the side panel.

This compact PC Precipitron is ideal for use with air handling or air conditioning units, particularly in hospitals, retail stores, libraries and office areas. Equally applicable to industrial process requirements.

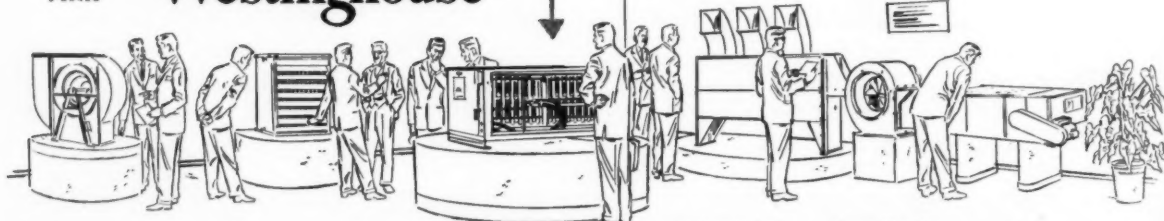
See this amazing unit at the A.S.H. & V.E. Show in Philadelphia. Or, call your Westinghouse-Sturtevant Sales Engineer... he is the "Man With The Facts" on air handling and electronic air cleaning.



YOU CAN BE SURE...IF IT'S

Westinghouse

J-80428



Silentvane Fan

Speedheater

PC Precipitron

Industrial
Heater

Ventilating
Set

Air
Handling Unit

SEE IT AT THE

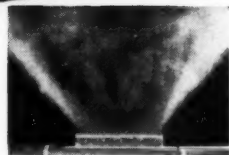
A.S.H. & V.E. SHOW! January 24 thru 28, 1955 Here's where you'll find the new PC Precipitron, with its exclusive features. Booths 540-544.

For Heating and Cooling • For Any Room Location • For Old and New Houses

IT PAYS TO INSTALL *Lima* DIFFUSERS



SERIES 40 LIMA FLOOR DIFFUSER

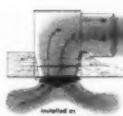
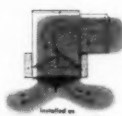
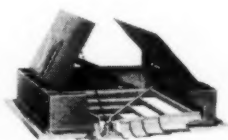


Originally developed by Lima engineers and widely copied ever since, the Lima Floor Diffuser is equally efficient for heating and cooling. Spreads a fan-shaped blanket of air upward and outward at proper angles . . . pulls air from within room toward outer wall, setting up induced air circulation without drafts. Five popular sizes are now available in a choice of Lima permanent finishes: Metallic, Duragold, and Oak Grain.



SERIES 60 LIMA SQUARE DESIGN CEILING DIFFUSER

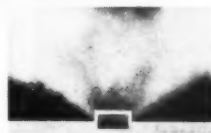
Beautiful square design harmonizes with rectangular rooms and modern square block ceilings. Square design and stepdown vanes provide greater free area. Installed as warm air or cooling outlet, air is discharged outward and slightly downward in all directions. Also recommended for return air outlets, especially in perimeter systems, eliminating large, unsightly grilles. Built-in easy balancing mechanical damper delivers air through center of damper and provides full air shut-off.



Quality Engineered For Top Performance
Quality Styled For Matchless Beauty
Quality Built For Greater Strength



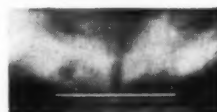
SERIES 45 LIMA WALL DIFFUSER



Offers all the advantages of perimeter heating and cooling where side wall or baseboard outlets are preferred. Particularly adaptable where cooling is being added and registers are already located in or just above baseboard. Diffuses air upward and outward at correct angles so air stream does not strike room occupants regardless of velocity. Induces room air recirculation. Exclusive balancing feature. Now available in three sizes: 10 x 6, 12 x 6 and the new 14 x 6.



SERIES 70 LIMA PERIMETER EXTENDED BASEBOARD DIFFUSER



Pleasing style lines blend beautifully with any room interior. Diffuses a uniform fan-shaped blanket of air up and over a wide area. Factory set louvers assure correct vertical diffusion from wall for setting up room air recirculation, giving complete comfort without drafts and eliminating wall smudging. Full length built-in easy balancing mechanical damper assures uniform air diffusion regardless of damper setting. Available in two foot and four foot sizes. Hidden joining connector simplifies assembling in required multiples for continuous installations.

Ask your jobber or write direct for new catalog showing the complete Lima line of quality diffusers, registers and grilles.

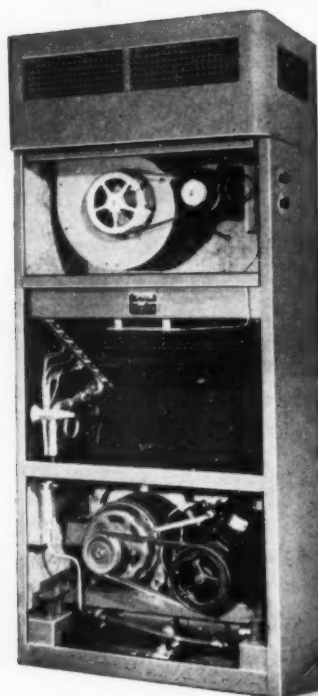
Lima

REGISTER COMPANY, LIMA, OHIO

Sold exclusively through heating wholesalers and manufacturers

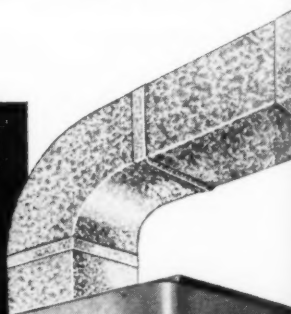


TYPHOON uses MICROLITE because



"Microlite gives more acoustical value than any other insulating material"

So say engineering officials of the Typhoon Air Conditioning Co. These men made careful tests of a number of insulating materials before determining that Microlite "gives more acoustical value than any of the others". As a logical result, Typhoon is now using Microlite glass fiber insulation exclusively in their air conditioners.



TYPHOON Thinks Silence Is Golden. To keep its air conditioners silent, Typhoon uses three-quarter inch, half-pound density Microlite, which has a sound absorption coefficient of .75 at 1000 cycles (#7 mounting with 10" backspace). Because of its remarkable resiliency and high tensile strength, Microlite does not break down or settle as a result of vibration; thus it always maintains full acoustical (and thermal) efficiency.

And That Isn't All. Microlite is extremely lightweight; is easily cut to any shape; is so soft and flexible it can be readily installed around corners and curves without loss of effectiveness.

MICROLITE Goes Inside Ducts Too. Microlite duct liner is a most efficient, most practical acoustical duct insulation. You simply cut the desired size, adhere it to the metal and form the complete duct section in the brake.

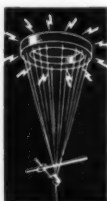
For samples and a folder, write to Glass Fibers Inc., 1810 Madison Avenue, Toledo 2, O.

VITRON Glass Textile Yarns • Rovings • Micro-Fibers

DURAMAT Vapor Barriers • BLUE FLAG Pipe Wrap

MICROLITE Thermal and Acoustical Insulation

COUSTIC-AIRE and THERMO-JET Aircraft Insulations



GLASS FIBERS INC.

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... developed, patented and used exclusively by Glass Fibers Inc.

CHICAGO

STEEL PRESS BRAKES

Known throughout the world for their sturdy all steel construction, Chicago Steel Press Brakes—Power Brakes and Hand Brakes—are the result of over 45 years' experience in developing and building these strong dependable machines for the fabrication of Sheet Metals.

Long life and trouble-free service are built into every machine from the Heavy Steel Power Press Brake to the Hand Bending Brakes.

SERIES D

Press Brakes for heavy plate and sheet metal work.



SERIES L

Best for Heavy sheet metal and light plate forming as well as multiple punching, shearing, etc. Built with machine tool standards for continuous high production.

WE MAKE A COMPLETE LINE
OF INDUCTION HARDENED
DIES FOR ALL PRESS BRAKES

A GREAT ADVANCE
IN DIE MAKING

We control the DEGREE,
DEPTH and the LOCATION
of the HARDNESS in ONE
ELECTRONIC PROCESS.
This method of hardening was
developed especially to meet
these unusual requirements in
long forming dies.



NO. 131

A NEW MODEL, industry, large and small, finds this press the answer to its needs for speed and accuracy in the manufacture of light sheet metal parts and products.



STANDARD HAND BRAKE

The accepted standard in this class of Machinery. Used in the fabrication of Modern metals such as Stainless steel, aluminum alloys and high tensile alloys.



PORTABLE HAND BRAKE

Not a bench machine. It is a Standard brake in every way, an ideal machine for general shop, trade schools, etc. Can be taken along on the job, for air-conditioning, etc.



BOX AND PAN BRAKE

A universal Box and Pan Brake that combines the features of the Universal Brake with the Box and Pan Brake as well as the Standard Hand Brake. Used in manufacture of Electric switch boxes, panel board cabinets, conveyor buckets, tote boxes, Radio Chassis, etc.

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You're sure of this

*You have put
your faith in*



*more than
15,000,000 times*

**A heating man we know put
it this way:**

"We have enough headaches in this business without borrowing any. So, when we find a product that always works, that's it. Take a Field Draft Control. I install a Field, turn my back and forget it. That dependability is worth many dollars to me. And where dollars are at stake a few pennies more or less in the price don't mean much."

FIELD CONTROL DIVISION
of H. D. CONKEY & COMPANY, Mendota, Illinois
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Pre-Engineered JETTRONAIRE HEATING SYSTEMS

simplify your installation problems

SMALL DIAMETER PIPES

Perfect for conversion jobs in older homes . . .

LESS CUTTING—
FASTER INSTALLATION

NO OBJECTIONABLE DRAFTS

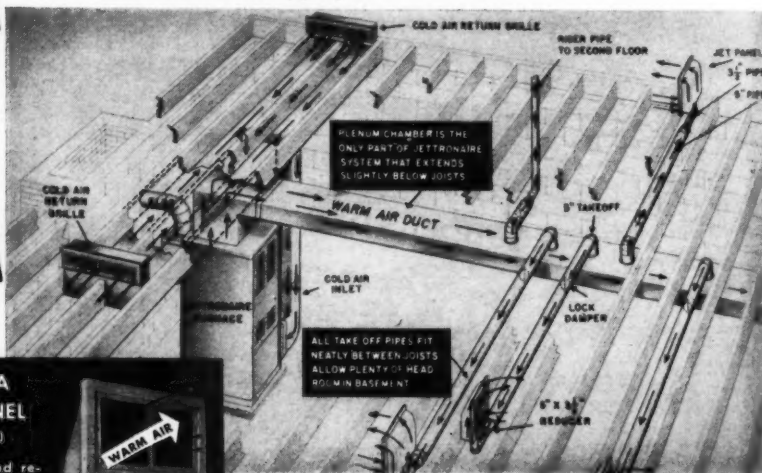
Room air circulates
and re-circulates
from one panel

ADAPTABLE FOR ADDITION OF COOLING UNIT

Jettronaire cooling units are integral with heating units. They may be attached when installed . . . or added later at convenience of home owner.

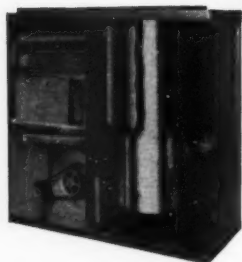
YOU CAN SELL **MORE—**
INSTALL **MORE—** without
extra men or tools!

Jettronaire Heating-Cooling Systems are pre-engineered "packaged" units that give modern controlled air circulation, comfort and economy. The small diameter pipes (3½" at panel) minimize wall cutting, speed up installation time . . . make money for you!



TYPE A JET PANEL (Patented)

Circulates and re-circulates warm, filtered air from furnace with room air for more efficient heating.



NEW! TYPE B JET PANEL—For use with rectangular ductwork

Use with any forced warm air heating system to provide advantages of Jet Panel. Fits all conventional ductwork.

Several models of Jettronaire Furnaces are equipped with built-in electronic air cleaners. Lo-Boy model above, has one side panel and front removed to show details.

Hi-Boy Jettronaire Furnace at right is space saver for homes, stores, offices, utility rooms and small basements.

All gas furnaces AGA approved, two-pass heat exchangers of 12 gauge steel, guaranteed for 10 years; oil burners U/L approved.



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being considered

Write for details of our exclusive franchise

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JETTRONAIRE

INCORPORATED

1100 EAST WARRINGTON AVENUE
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AS MODERN AS TOMORROW'S HOME

the filter with features worth repeating!

• **more profit**

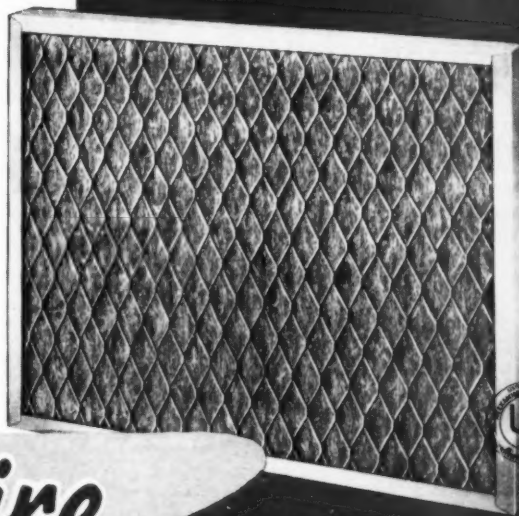
on per-unit sales with a solid demand already established.

• **faster turnover**

a real volume-builder that sells the growing "change-over" market.

• **easier servicing**

eliminates nuisance service calls; saves time and material costs.



A-lum-O-Aire

PERMANENT, DRY-TYPE FILTERS

All standard sizes in 16", 1" and 2" widths. Special sizes to order.

features that help you sell

Here's the filter that's **BIG NEWS** in the air-conditioning and warm-air heating industry. All-metal "lifetime" construction. Absolutely rustproof and fireproof. Clean, safe, economical. No messy oils or adhesives required.

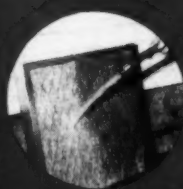
prospects a-plenty!

Everyone in town who owns a warm-air furnace or air-conditioner is your potential customer. One friend tells another — and you make another sale!

washes clean with water

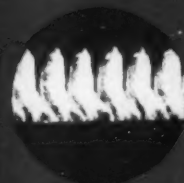
Simplifies routine servicing; reduces time-wasting "callbacks". No mess to clean up — no extra weight to carry. So simple a child could do it!

New sales aids, streamers and displays now ready for your 1955 advertising and promotional needs.



Micrograph of aluminum wool media showing texture of tiny fibers which catch and hold even the most minute particles of lint, dust and dirt. Copper media also available for commercial and industrial requirements.

Flushes clean in a jiffy with cold water from hose or faucet. No oils to add. Just wash and replace. Never rusts, no fire or smoke problem. Cleans air safely for better health.



Housewives appreciate saving time in dusting and cleaning tasks. No greasy film to scrub off walls, windows and furniture. Some even make filter cleaning a part of regular housecleaning chores.

METAL WOOL DIVISION

CAREY

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SPRINGFIELD, OHIO

"world's largest manufacturers aluminum and copper wool"

Metal Wool Division
Carey Electronic Engineering Co.
1870 Clifton Avenue
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☐ dealer

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Gentlemen:

I want to know how I can improve my filter merchandising activities. Send me prices and details on A-LUM-O-AIRE.

Name _____ Title _____

Company _____

Address _____

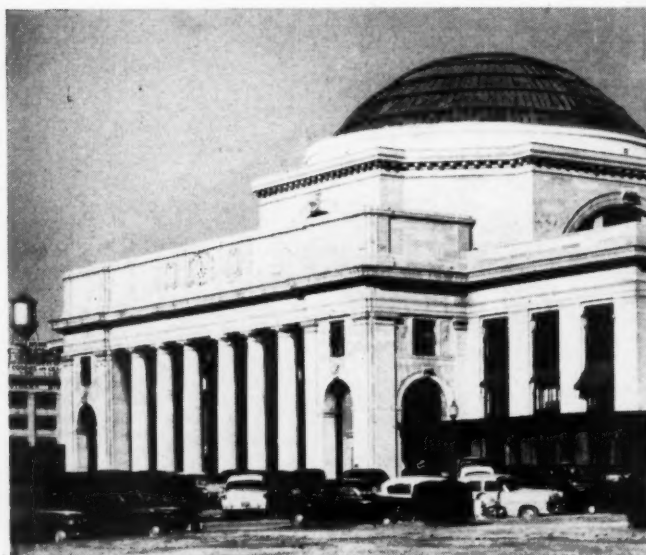
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Attention Distributors: Exclusive territories in selected areas still available to qualified outlets. Write for complete details, today!

Re-roofing a dome with copper

ROOFING PANS preformed from 20" x 96" x 20 oz. gage cold rolled copper sheets were used for the batten seam construction. →

↓
COMPLETED COPPER-COVERED DOME which is 94' 6" in diameter and 28' high. Architect: Carneal & Johnston. General Contractor: James Fox & Sons, Inc. Sheet Metal Contractor: N. W. Martin & Brothers. Anaconda Distributor: Gordon Metal Company. All are located in Richmond, Va.



→
NETWORK OF COPPER ALLOY BARS and angles suspended from the crown help to hold in place the additional structural surfacing required to form the new contour. Angles 3" x 5" bent to the radius and curvature of the dome produced the desired shadow lines.



New roof uses 45,000 lb. of Anaconda Sheet Copper... assures owner of low upkeep, long service

When the Richmond Terminal Railway Company's Broad Street Station at Richmond, Va., was built, the dome was roofed with a nonmetallic material. Structural movement of the roof covering made frequent repairs necessary. As it appeared this trouble would continue to mount, the owner authorized an extensive study by its architect-engineers resulting in the selection of copper.

Only this time-tested material could economically match the durability of this handsome building, for copper

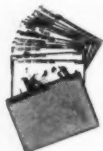
measures its economy by *generations* of service. It requires little attention or maintenance. And, as it grows older, a copper roof acquires a beautiful green patina.

Construction details

Placing a new copper covering over a concrete spherical surface called for special designs which dictated that the major portion of the copper roof be of batten seam construction using cold rolled copper sheets of 20 oz. gage, 20" x 96". Inverted bronze channels were employed for the battens. For the

crown of the dome, flat lock seam construction was employed using 16" x 18" roofing squares of 20 oz. gage cold rolled copper. Edges were pretinned to a depth of 1½".

When roofing must *last*, ANACONDA Sheet Copper costs *less*. Good design and proper application insure its enduring service. Anaconda building engineers were privileged to assist with the design of this important roofing job. Their counsel is equally available to you in all problems involving sheet copper design and construction. 0457



FREE file of drawings—Do you have the FREE Anaconda file of drawings? Nearly fifty drawings show new or improved ways to apply sheet copper. Each is printed on a separate 8½" x 11" page, handy for quick-reference filing. This entire series may be obtained absolutely FREE by writing for Portfolio S to: **The American Brass Company, Waterbury 20, Conn. In Canada: Anaconda American Brass Ltd., New Toronto, Ont.**

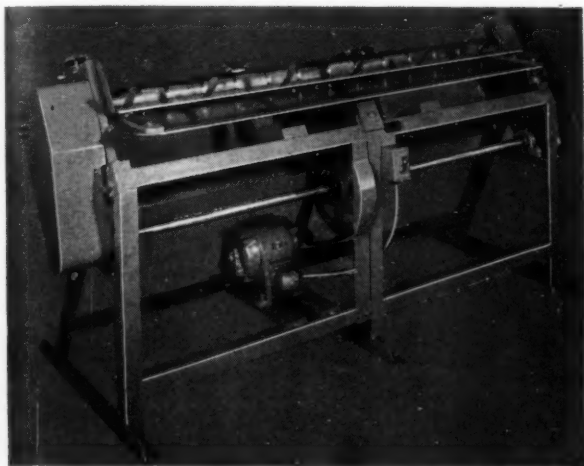
for better sheet metal work use

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FALLSINGTON

Sheet Metal Machinery

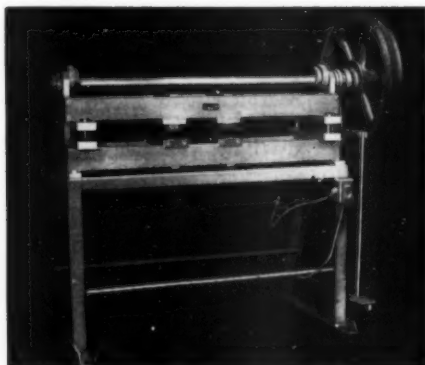
DESIGNED FOR THE PRACTICAL SHEET METAL MAN



The new Fallsington 5' Pipe Rolling Machine will roll pipe without damage to the pipe or its locking device.

Pipes, 2' to 5' in length, 4" to 10" in diameter, of 30 to 26 gauge metal, can be rolled at the rate of 15 per minute.

This new time, labor and money-saver embodies the most modern aspects of machine tool building. It is easy to handle and occupies a minimum of floor space.



The Husky Press — all welded design — featuring large open bed area — set ups available for notching & blanking, forming of elbows, cheeks, government locks, louvers, etc. in 24 gauge or less — Presses available in 36" — 48" — 60" widths. Specials on request.



Heavy duty Husky press — model DP for larger blanks — such as transitions, boots, etc. Widths — 36" — 48" — 60". Also special sizes.



Model AB Multi-Notcher power driven with adjustable notching heads. Available for 36" — 48" and 60" width sheets. Ideal for notching fittings and gang punching. Extra width machines on request.

Visitors to Heating
and Air Conditioning Show
Jan. 24-28 — are invited
to visit our plant.
For appointment phone
Morrisville 7297
10 miles from Philadelphia

Send us your drawing or sample for a correct
equipment and cost analysis by Fallsington engineers

FALLSINGTON MFG. CO.
Fallsington, Penna.
Delaware Valley, U.S.A.

NWAHACA Sees Big Year in '55

(Continued from page 100)

in the heat gain loads could be accounted for. It was found that the use of the kitchen ovens and the amount of laundering accounted for much of the excess loads placed upon the cooling equipment. When these normal functions of the household were not being performed, the equipment operated as intended.

Cyclic, Constant Blower Operations Defined

An interesting operating characteristic was uncovered when constant blower operation was compared with cyclic blower operations. Cyclic blower operation was defined as arrangement of the electrical circuit so that when the thermostat turned on the compressor, the blower also was turned on and when the thermostat opened the circuit to the compressor, the blower ceased to operate. It was indicated that cyclic blower operation resulted in a greater quantity of moisture removed than constant blower operation. This feature is to be investigated further during the summer of 1955.

The use of a 4 in. duct system for summer cooling indicates that a minimum of 60 cfm is required for each duct run if sufficient air is to be delivered to the living area.

Another cooling research program was reported by C. F. Chen, who summarized results noted during the summer of 1954 at Research Residence No. 3. This report dealt with a perimeter loop system installed in a concrete slab floor. The perimeter loop was supplied by five feeder ducts from a centrally located heating and cooling package. A common return system was used. It was found that 18 percent of the cooling capacity of the unit was lost through the slab, although the slab was insulated around its perimeter with an asphalt treated 1 in. thick glass fiber panel that dropped to a 12 in. depth from the top of the floor.

The distribution system used both 4 × 14 in. and 2 1/4 × 14 in. diffusers, depending on the degree of exposure at the diffuser location. The tests revealed a 4 deg temperature difference between the 3 in. level and the 60 in. level. The tests also revealed that this differential was maintained even on days when maximum outdoor temperatures were in effect.

An evaluation of the results obtained indicated that floor diffusers are just as effective a means of distributing chilled air as are floor registers which had been used in a previous test conducted during the summer months of 1953.

THIS IS IT!

One source for prefabricated furnace fittings, grilles, diffusers, humidifiers and rain goods



300,000 square feet of productive capacity to give you convenience in ordering, plus quick service and big savings on these sheet metal products:

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| • Aluminum Fittings | • Seamed Heat Tubing |
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| • Galvanized Fittings | • Rain Goods |
| • Galvanized Pipe and Elbows | • Registers, Complete Line, both Perimeter and Conventional, including Floor Diffusers. |
| • Galvanized Sheets | • Baseboard Diffusers in 2, 4 and 8 foot lengths. |
| • Complete Small Pipe Systems; both Aluminum and Galvanized | |

You can buy any or all of the top-quality Char-Gale products listed here in mixed truckloads, delivered direct to your door by Char-Gale's own fleet of trucks. You don't need large inventories which tie up your space and working capital, yet you can offer your customers quality equipment *when they want it*. Look over this list, and write, wire or phone us for specific information.

Ask about the extra-capacity Gale-Aire 4 1/2" System.

Char-Gale

**MANUFACTURING
COMPANY**

ANOKA, MINNESOTA



"INCREASED MY BUSINESS **20%** EACH YEAR SINCE 1948"

"My Winkler Direct Factory Franchise is paying off far beyond expectations," says Allen Huffman, St. Paris, Ohio.

"Eight years ago, with one helper, I opened for business in a 22 x 85 ft. building. The first year we tried to make a living selling anybody's equipment—and the going was rough. *Then I discovered the Winkler Franchise and signed up!*

"Business boomed immediately. We started with Winkler LP Oil Burners, then added the complete Winkler line, with the result that our sales

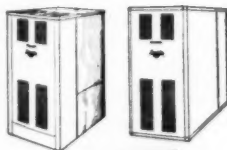
increased 20% each year. In 1950 it was necessary to double our building space.

"I have never ceased to marvel at the efforts made by Winkler to increase our selling power. The Winkler Training Institute, for example, has been of tremendous value—our men have attended both the sales and engineering courses."



WINKLER TRAINING INSTITUTE—**FREE** TO DEALERS AND PERSONNEL

Winkler's comprehensive training program develops expert technicians and money-making salesmen. It's *free* to Winkler dealers and their men. Training is given in successful selling procedures—product demonstrations—business promotion methods. Individualized instruction by factory experts shows trainees how to close sales every month of the year. Engineering course covers sizing, wiring and servicing Winkler Products.



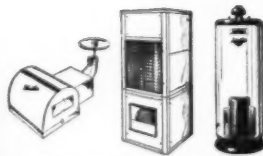
Oil, Coal, Gas-fired Boilers and Furnaces . . . Gas Conversion Burners
. . . Wall Heaters . . . Stokers . . . Air Conditioners . . . Water Heaters

WINKLER

WRITE TODAY FOR DIRECT FACTORY FRANCHISE DETAILS

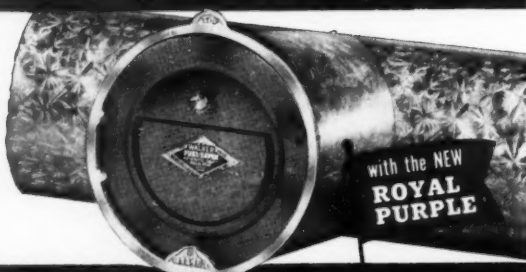
STEWART-WARNER CORPORATION

U. S. MACHINE DIVISION • Dept. A-15 • LEBANON, IND.



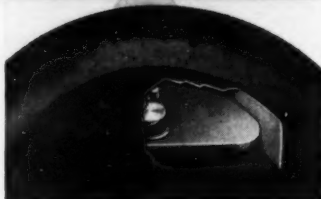


WALKER SCORES AGAIN!



REVOLUTIONARY IMPROVEMENTS in Automatic DRAFT REGULATORS

Now for the first time in Draft Regulator construction a REVOLUTIONARY improvement seals the adjustment assembly (the heart of any draft control) and its intricate mechanism away from dirty, corrosive soot and carbon deposits that destroy its proper functioning. Illustration shows heavy deposit of soot and carbon on the back side (actual installation). Cut-away



view shows how adjustment assembly is protected from rust and dirt with this new, outstanding (patents pending) sealed-in feature.

This view (actual installation in use a year) shows how front side of regulator is clean as new. Sensitivity of the pivot pins on the dirty regulator are positively not impaired because (1) They are located on the clean face of the vane and set back away from edge; (2) The box type hinge makes it possible to seal the knife-edge bearings from the dirty soot



deposits on back of vane; (3) The hollow box construction provides a knife-edge bearing and centering guide for vane.

This is an unretouched photograph of unit in use for over a year. This shows how clean and glistening pivot pins remain after years of use.



Shows how box type hinge for pins is completely closed front and back. Assures sensitive service for years.



This new revolutionary improvement found only in the Walker Royal Purple L-CD Unit and is exclusive —no other make of draft control has it, no other can duplicate it, because patents are pending. This is the only draft control made that can be easily adjusted after one year, two years, three years or more under the worst conditions of soot, dirt and dust. See your jobber or write for catalog of complete line of draft controls and the famous Walker Venturi-Top Chimney Cap.

Walker Manufacturing & Sales Corp.

1730 Penn St.

St. Joseph, Missouri

During the two days preceding the convention (November 29 and 30) the various committees of the association held their annual conferences to consider the plans for the coming year. Each of the committees reviewed its accomplishments since the June meetings and reported through their chairmen the recommendations for activities for the coming months.

Bigger and Better Manuals Coming

Some of the suggestions made relative to the revision of Manuals 3, 4, 6, 9, 10 and 11 were as follows:

Manual 3, E. B. Root, chairman — a) rewrite chapter 1; b) revise the manual to make it suitable for carrying in the pocket.

Manual 4, W. C. DeRoo, chairman — a) include a section on the loop system of heating a building; b) add a new work sheet to be known as No. 46 for use in small homes with and without basements; c) include data for determining plenum sizes; d) add data for 4, 5 and 6 in. round duct installations.

Manual 6, F. W. Brundage, chairman — a) insert a new sequence of procedures for adjusting a heating system for continuous air circulation; b) recommend a 90 deg rise for CAC adjustment instead of the 100 deg now used; c) include data on LP gas; d) compile a sequence for adjusting counterflow furnaces for CAC; e) list suggestions for the heating dealer to leave with the homeowner.

Manual 9, R. M. Wallis, chairman — a) add a supplement giving architects and design engineers a better idea of how warm air perimeter heating systems can be used for commercial applications; b) prepare a technical treatise with an AIA file number which will familiarize architects with the entire field covered by slab constructions for large and small size installations.

Manual 10, C. L. Grandstaff, chairman — the committee reported that tests taken in homes using small pipe systems installed according to recommendations of Manual 10 and a continuous check of capacities against the tables given in Manual 10 indicated that the tables are adequate for sizing the number of runs needed for the small home.

Manual 11, L. A. Miles, chairman — a) rewording of many of the phrases used throughout the manual; b) inclusion of new tables and procedures in the next printing, c) include factors relating to sun shading and angle of incidence.

B. F. McLouth, chairman of the College Short Course Committee, reported that four-day sessions will be held at Oklahoma A & M College, Purdue University, Michigan State College, Penn State University, Syracuse University and Iowa State College.

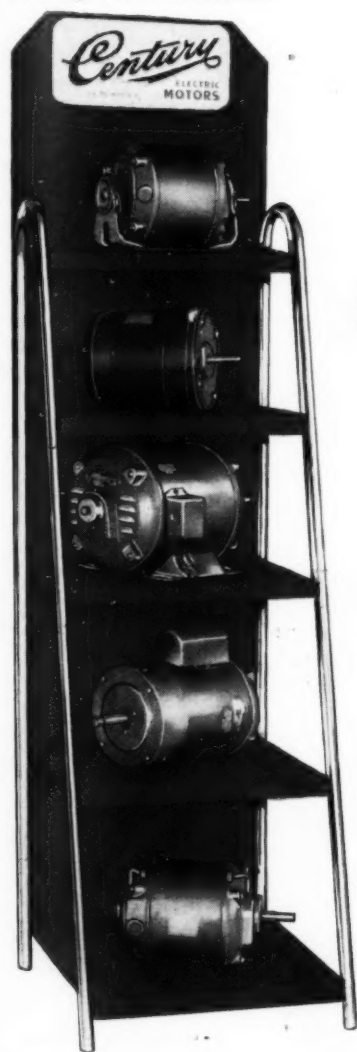
N. T. Hess, chairman of the Indoor Comfort Conference Committee reported 20 two-day schools will be held throughout the nation within the next six months. The program for each school will include one day on summer cooling principles and problems and one day on perimeter heating systems.

Now from *Century*

TWO EASY WAYS TO GET YOUR SHARE OF PROFITABLE MOTOR REPLACEMENT BUSINESS

SELL MOTORS ON SIGHT
WITH THIS

Century Silent Salesman



VISIT CENTURY'S BOOTH NO. 900,
INTERNATIONAL HEATING AND VENTILATING SHOW — PHILADELPHIA,
Jan. 24-28

1 MAINTAIN YOUR OWN MODEST STOCK OF *Century* MOTORS FOR RESALE

- Most often, when folks need a replacement motor, they need it QUICK. You can fill that need—and gain their loyalty—by selling them top quality motors from Century's Complete Line.
- A stock of Century Motors prepares you for profitable replacement business with most makes of compressors, oil burners, blowers, unit heaters, pumps, fans, appliances, and scores of other motor-driven products.
- Free, with your order for only ten Century Motors, you get the attractive red and chrome metal display stand shown here. It identifies you as the man to see for replacement motors. You'll show more motors, sell more motors with this display, in just a few square feet of space. Limit of one display stand per customer.

2 WORK CLOSELY WITH YOUR COOPERATIVE *Century* SERVICE STATION

- Century's network of service stations is nation-wide. There's one in your vicinity—ready to give you delivery on practically any Century Motor your customers might need.
- Every Century Service Station is staffed by men whose skill you can use to solve your motor service problems . . . men who can help you get more profitable motor replacement business.

CENTURY ELECTRIC COMPANY St. Louis 3, Missouri
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**GET ALL THE DETAILS
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I want all the facts about Century's motor replacement selling plan.

Name.....

Company.....

Address.....

City..... Zone..... State.....

WHAT ASSOCIATIONS ARE DOING —

(Continued from page 66)

veloped, for the first time in its history, an effective, working promotional agency in which all three partners — refining, equipment manufacturing and marketing — can cooperate in a practical program to promote oil heat."

He explained that the council will not only devote its efforts to national advertising and promotion, but will work on local cooperative promotion as well, and will assist in making more effective all local efforts to increase public acceptance of oil heat.

Hold Winter Conference in Atlanta

THE ROOFING AND SHEET METAL Contractors' Association of Georgia held its winter conference at the Dinkler Plaza Hotel, Atlanta. Paul M. Welch, system vice president, Citizens and Southern National Bank, discussed financing in general, including home improvement loans through contractors, loans for equipment such as heating and air conditioning installations, and commercial loans to contractors. Erle Phillips, labor relations attorney, outlined common pitfalls of management in entering labor contracts. Ben Askew, manager, Industrial Sales Engineering Div., Georgia Power Co., discussed the past, present and future of heating and air conditioning and the

power companies' plans with regard to this field. At the business meeting, reports were given on the status of the sales tax test case, union activities and business conditions.

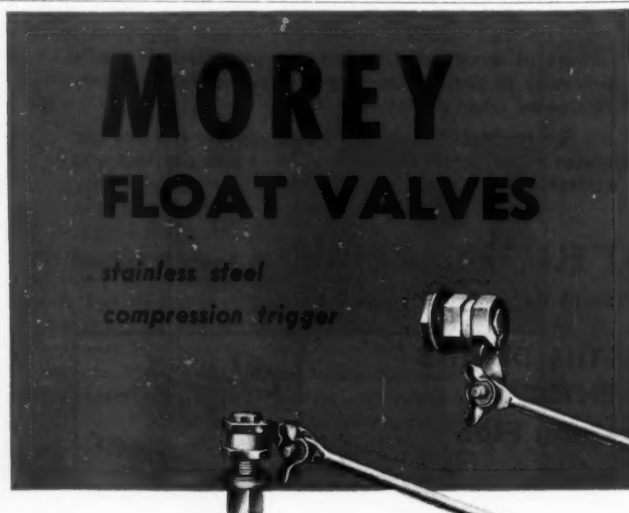
Columbus, O. Discusses Cooling Classes

PRINCIPAL SUBJECT under discussion at the fall meeting of the Columbus Sheet Metal, Furnace and Air Conditioning Association was a proposed summer air conditioning educational program to be sponsored by the association. Engineering, sales and service phases of air conditioning would be treated, with emphasis on the practical aspects. Members agreed that there was a definite need for such a program, and a committee under the chairmanship of Dwight Swebston was appointed to study the matter further.

Milwaukee Amends Ductwork Code

THE MILWAUKEE SHEET METAL Contractors' Association reports that Section 31-2(a) of the Milwaukee Building and Zoning Code relating to separation of occupancies and use has been amended to read (in part) as follows:

"Two story row apartments having separate entrances for each dwelling unit must be separated with vertical separations (walls) of not less than one hour fire resistive construction extending from the basement floor to the underside of the roof boards. Heating ducts



MOREY FLOAT VALVES

stainless steel
compression trigger

Both valves work
horizontally or vertically

	MOUNTING	WATER INLET	FLOAT SIZE
LARGE VALVE	3/8" male pipe thread	1/8" female pipe thread	1 1/2" x 4"
SMALL VALVE	1/4" male pipe thread with compression fitting.		1 1/2" x 3"
FLOW DATA	Large Valve: 240 gallons per hour at 60 p.s.i. Small Valve: 190 gallons per hour at 60 p.s.i.		

Years of Trouble-Free Service!

Orifice: brass or chrome; brass wing nut and bolt; Neoprene gasket; high impact, Neoprene Styrene float. STOCKED BY JOBBERS.

Used as original equipment on evaporation coolers of outstanding reputation. Also found on many poultry and small stock troughs and cooling towers. WILL WORK IN 1 INCH OF WATER!

LIST PRICE: \$1.60 each
(large or small size)
Subject to standard jobbing discounts.

PACKED FOR JOBBERS
12 valves per carton
6 cartons per case.
Large inventory maintained at all times assures prompt service.

DAN MOREY Dept. A, 814 So. Robertson, Los Angeles 35, California

PRESENTING

—the latest and
most advanced design
in air conditioning registers and grilles

Solid welded corners
—no mitre line

New hollow-vane
opposed-action valves
—reinforced with center rib
for sturdy construction

Ultra short dimension
with valves fully open

Hollow streamline fins
 $\frac{3}{4}$ " CC $\frac{3}{4}$ " deep

Counter sunk
screw holes

Largest free area
in the industry

New Silvair finish
baked on for durable wear
—eliminates final painting
on the job

Air foil valve-design
permits smooth flow of air



MANUFACTURING COMPANY, INC.
CEDAR GROVE, ESSEX COUNTY, NEW JERSEY

REPRESENTATIVES IN PRINCIPAL CITIES • IN CANADA — AIR-CARE, LTD., MONTREAL

WHAT ASSOCIATIONS ARE DOING —

installed in such walls must be covered with $\frac{1}{4}$ in. corrugated asbestos or with approved equivalent protection. Heating ducts shall not be installed back to back in such separation wall."

The amendment was effective October 5, 1954.

Pennsylvanians Publish Newspaper

THE SHEET METAL, Air Conditioning and Roofing Contractors' Association of Pennsylvania recently published its first edition of the *News-Reel*, a tri-monthly publication which will keep members informed on association activities and news of interest taking place in the field. Editor of the new publication is A. J. Sabathne, who urges members to send news items to him at P. O. Box 1351, Altoona, Pa., or to the association's secretary, E. W. Liebermann, 1411 Merchant St., Ambridge, Pa.

Rochester Group Hears Safety Talk

EYE INJURIES and how to avoid them was the subject discussed at a recent meeting of the Master Sheet Metal, Furnace and Roofers' Association. The program was presented by Laverack and Haines (group insurance) through the safety committee of the New York State Sheet Metal, Roofing and Air Conditioning Contractors' Association. Richard W. Friday, secretary

of the Rochester group, points out that the National Safety Council reported over 80,000 eye injuries suffered last year, many resulting in total blindness.

Ohio Directors Talk Membership

HOW TO ENCOURAGE more contractors to join the state association was the subject discussed by the directors of the Ohio Sheet Metal Contractors' Association at the board's recent fall meeting. Representatives of the board were assigned to attend local meetings in areas where membership is weak to explain the value of membership in the state association as well as the importance of belonging to a local association. Harry Fahnle, chairman of the convention committee, reported on the progress of the convention program.

Discuss Draft Controls at Kalamazoo

WENDEL FRANKS, special district representative for Windmaster Corp., was the featured speaker at the December meeting of the Kalamazoo Sheet Metal, Roofing, Heating & Air Conditioning Contractors' Association. Service personnel as well as contractor members attended this meeting to hear Mr. Franks explain the function and importance of draft stabilizers.

Officers recently elected to serve for 1955 are: Jack VanDalson, president; Ray Wolfe, vice president; Richard Nipe, treasurer; and E. J. French, secretary.

YOUR
CUSTOMERS
WILL

SAVE
ON
FUEL
BILLS

kleen-aire
HEATING SYSTEMS
operate more efficiently

COMFORTABLE ROOMS—
NO OBJECTIONABLE
DRAFTS

CLEAN, WARM AIR
COMES OUT HERE

ROOM AIR
RE-CIRCULATES HERE

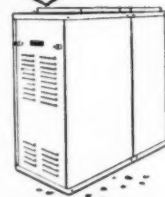
Kleen-aire's amazing efficiency results from this panel that mixes about 35% warm room air with 65% fresh, clean, warm, filtered air from the furnace.

kleen-aire
HEATING
SYSTEMS

Floor and ceiling temperatures
can be kept within 2 degrees

KLEEN-AIRE
GAS FURNACES
ARE GUARANTEED
10 YEARS

Kleen-aire furnaces are extremely quiet in operation, compact in size, attractive in appearance. Built of extra-heavy gauge steel for durability. Cooling unit is optional.



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STEEL CITY FURNACE CORP.

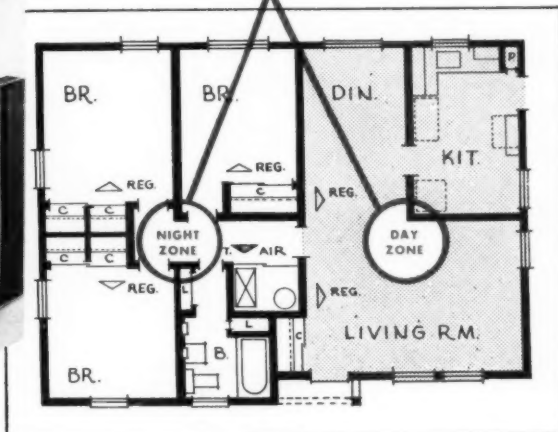
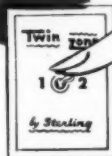
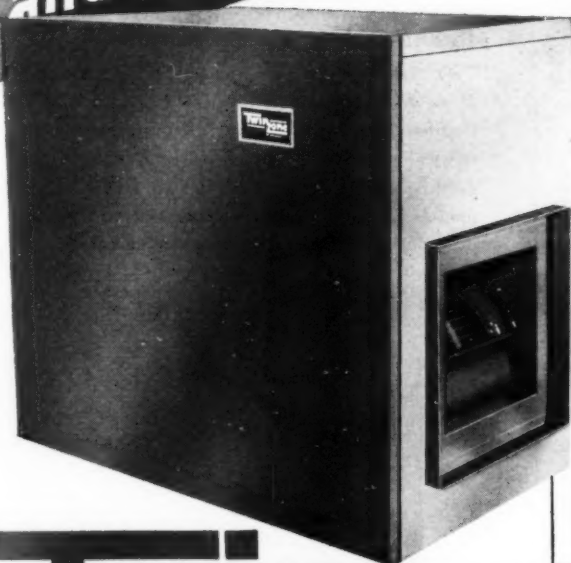
Springdale, Penna.

Phone 1215

Exclusive territories still available in certain areas.

Write, phone or wire for full details

the Unit that Makes Sense
and More Dollars for *you*



Twinzone

AIR CONDITIONER

You'll agree that when you can sell the small home market you can write your own ticket.

TWIN-ZONE, and only TWIN-ZONE, provides the practical answers to this problem . . . abundant cool air where and when needed . . . a price well within the limits the small home owner will gladly pay! TWIN-ZONE is designed to conform to F.H.A. and V.A. requirements and can be installed at a fraction of the cost of larger units providing equal comfort.

The TWIN-ZONE principle of dividing the house into Day and Night zones gets double effectiveness out of sensible capacity. All the capacity is employed . . . but it's not wasted because a flip of the switch

directs the cool air to the zone to be occupied. Air cooled . . . there's no water . . . no waste . . . no needless plumbing . . . no hazard of shut-downs due to drought conditions.

And, when you can offer this amazing TWIN-ZONE summer comfort at a saving of at least \$500 to the home owner . . . you just know you have the sensible answer to making far more air conditioning sales and profits!

**WRITE . . .
GET ALL THE FACTS
ON TWIN-ZONE SALES
AND PROFITS**

**AIR COOLED . . . NO WATER . . .
NO WATER TOWER . . .
NO NEEDLESS PLUMBING**

**DESIGNED TO CONFORM TO
F.H.A. AND V.A. REQUIREMENTS**

**USES EXISTING DUCTS
IN MOST INSTALLATIONS**

**A COMPLETE PACKAGED UNIT
READY TO INSTALL**

**HERMETICALLY SEALED
REFRIGERANT CIRCUIT
GUARANTEED FOR FIVE YEARS**

STERLING AIR CONDITIONING CORPORATION • GASTONIA, N. C.

STERLING AIR CONDITIONING CORPORATION
354 WEST MAIN AVE., GASTONIA, N. C.

Please send me full information on TWIN-ZONE and special dealer proposition.

Name _____

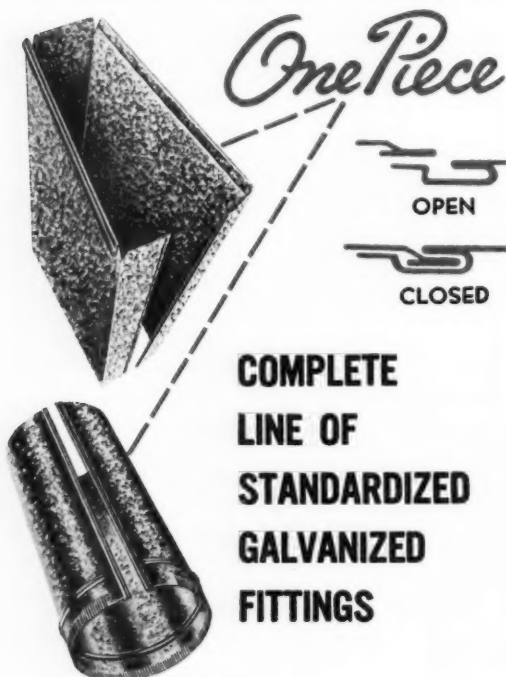
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City _____ Zone _____ State _____

Spee-D-Lok

FURNACE PIPE AND WALL STACK INSTALLATIONS

Neater • Faster • Easier



Slip the tongue in the groove till it snaps! It's locked and ready for use. No tools or malleting. Cuts without damage to locking feature. Furnace pipe stays round — wall stack and duct remain square. Save time, materials and money. Shipped in handy cartons. Superior color gauge system marks every gauge for quick, easy identity and fast handling in warehousing. Write for color chart.



**See your wholesaler.
Write for our
new CATALOG.**

**SUPERIOR METAL FABRICATING
NILES, OHIO**

Company

equipment developments

(From page 71)

Lake St., Chicago 12. Installed in a 2 in. opening in the return duct of a warm air heating or cooling system, unit is claimed to eliminate offensive odors, kill airborne bacteria, viruses and germs and purify the recirculating air. Unit is said to purify about 1000 cfm of air.

Packaged Air Conditioners

"WEATHERMAKER" line of packaged air conditioning units requiring no water — Carrier Corp., 308 S. Geddes St., Syracuse 1, N. Y. Designed for large spaces where water may be limited or where there may be piping difficulties, the air cooled refrigeration models are in four sizes from two to 7½ hp. Units provide cooling, dehumidification, filtering and circ-



lation of air from a single compact cabinet housing all essential components except the condenser, which may be placed on a roof or setback area, in a closet, or furred into the wall with ducts to provide outside air. Ductwork can be led from top or side. Heart of the unit is the direct-drive, hermetically sealed refrigerating compressor. Cabinet is bonderized and rust-resistant.

Large Capacity Duct Furnaces

SERIES OF LARGE capacity duct furnaces featuring sectional assembly to simplify installation — Reznor Mfg. Co., Mercer, Pa. Sizes range from 150,000 to several million Btu input. Each unit has a full complement of combustion controls; other components are selected by the heating engineer. All have built-in draft diverters, corrosion-resistant aluminized steel heat exchangers and cast iron universal burners mounted so combustion occurs directly into the heat exchanger tubes. Heater capacities in the large "DS" series are arrived at by combinations of the four 37 × 24 in. sections with 150,000, 200,000, 250,000 and 300,000 Btu capacities. A smaller "D" series in 50,000, 75,000, 100,000 and 125,000 Btu sizes have burner access and controls completely enclosed on one side.

Flush Mounted Wall Furnace

FLUSH MOUNTING wall furnace for residential application — Quincy Stove Mfg. Co., 807 S. Front St., Quincy, Ill. Added features to the regular line include a special bulb-type limit control which prevents overheating in event of electricity shutdown but permits a small flame to continue burning to maintain some heat, and three heavily scored areas which can be knocked out with a hammer for installation of one to three takeoff ducts. Forced draft arrangement with flue outlet at the top is said to operate efficiently with 0.03 WG chimney draft and is adaptable to most chimney installations.

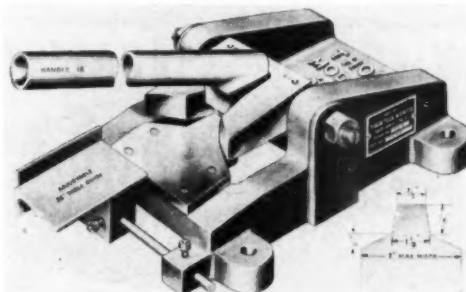
Metal Cooling Towers

ADDITIONS to the line of all-metal cooling towers for indoor or outdoor application — Acme Industries, Inc., Mechanic and Ganson Sts., Jackson, Mich. The two ton model is $52 \times 19\frac{1}{2} \times 17\frac{1}{2}$ in., and is said to handle a three ton cooling load in low humidity areas. All models employ blowers for quiet operation at static pressures normally encountered with ductwork. Large cooling capacities in minimum tower sizes are sought through wetted metal deck principle of heat transfer, all metal construction and "Z" shaped

baffles for maximum diffusion of water droplets. Other features are flush-type, anti-splash air inlets, centrifugal-type spray nozzles; and combination waste-drain-and-overflow for simplified servicing.

Notcher for Drive Cleats

MODEL 500 drive cleat notcher for 3 in. or smaller cleats 20 gage or lighter — Thor Tool and Die Co., 865 Estabrook St., San Leandro, Calif. The manually



operated tool is especially designed to handle long lengths of metal to reduce one operation in the notching and shearing of drive cleats. A 36 in. adjustable table guide supports the metal during the aligning and shearing operation. The 18 in. handle makes each shearing operation easy and smooth, according to the manufacturer.

General-ly Speaking:

PROFITS WERE NEVER BETTER!



General
FUEL OIL FILTER
Model 2A-300 for big, dirty jobs.

General
FUEL OIL FILTER
Model 2A-700 for average size jobs.



General
FUEL OIL FILTER
Model 1A-25 for small jobs.

The Original Domestic Fuel Oil Filter

Over a million GENERAL FUEL OIL FILTERS have been sold since General introduced America's first domestic fuel oil filter in 1939: A million individual profit possibilities at the time of the initial sale . . . An additional million sales leads each year in the form of seasonal cartridge replacements!

No wonder heating contractors are saying profits were never better.

Every oil burner . . . every service call . . . every oil delivery provides a potential additional sale — when you stock and sell fast-moving Generals. They're available in three popular models — so there's always one to fit the job. If you're not already profiting from the General line, ask your jobber about details.

See us in Booth 6 at the ASHVE Show, Philadelphia, January 24-28

CLEAN RIGHT SOOT REMOVER

is a profit-maker, tool For any type heating plant. Burns without flash or intense heat. Made for General Filters, Inc.



General Filters carry this Underwriters' Laboratories Seal



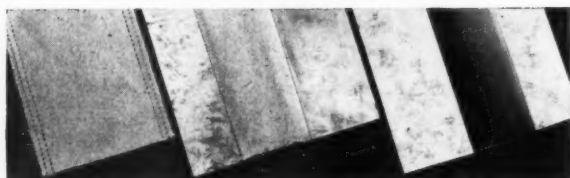
GET THE HABIT

Replace Every General Cartridge You Sell — At Least Once Each Year.

GENERAL FILTERS, INC.

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Canadian General Filters, Ltd. • 39 Crockford Blvd. • (Scarboro) Toronto, Canada

**Which
TYPE***
Do YOU Prefer?



FLEXI-DUCT VIBRA-STOP

***Grant Wilson**
FLEXIBLE DUCT CONNECTIONS

Stop system noise on Heating, Ventilating and Air Conditioning installations. Isolate mechanical rattles, starting vibrations, "on and off" cycle sounds, shaft whine, fan hum, etc. at their source. Apply either of the Grant Wilson Flexible Duct Connections between blower or plenum and furnace casing, between take-offs and main or branches . . . the resultant quietness of system operation satisfies customers, leads to more jobs, without call-backs.

FLEXI-DUCT . . .

Grant Wilson's Woven Asbestos Flexible Tape. *The choice of those who want rock-bottom economy combined with top efficiency.* Handy 50 foot rolls, 6 inches wide, with selvaged edges. Can be taped or bolted to equipment or duct work.



FLEXI-DUCT comes in convenient hand-size carton.

VIBRA-STOP . . .

Asbestos or Canvas, 4" wide, factory sealed to 4" galvanized metal on one side, 3" on the other. *Preferred by those who want the quickest, easiest installation.* 100 foot roll pulls out as needed from special carton.

Asbestos used is Underwriters' grade and meets Federal specs. MIL-C-4177. Canvas, also Underwriters' grade, meets Federal specs. MIL-D-10860.

Write today for full information, FREE samples and prices.



VIBRA-STOP is packed in 20" x 20" carton with core for free unrolling and handy carrying.

Grant Wilson inc.

ASBESTOS and INSULATING MATERIALS

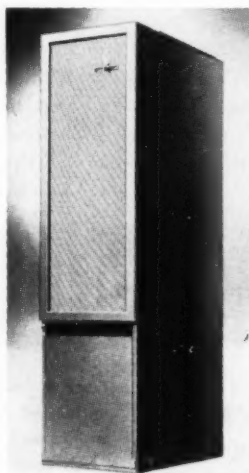
141 WEST JACKSON BLVD. • CHICAGO 4, ILLINOIS

equipment developments

(Continued)

Forced Air Furnaces

SEVEN GAS FIRED, forced air highboy furnaces with capacities between 75,000 and 150,000 Btu input and five counter flow models ranging from 75,000 to 110,000 Btu input — Royal Jet, Inc., 1024 Westminster Ave., Alhambra, Calif. Model RFA 80 is 58 1/4 in. x 14 3/16 in. x 25 3/16 in. for installation in a standard 30 in. closet. The left side gas inlet can be converted for right side, top or bottom connection. The blower and motor are on a pull-out track for convenience in cleaning, oiling or servicing. A resilient live rubber mounting isolates vibration and reduces operating sounds. The heat exchanger is die formed and seam welded. If bonnet temperature exceeds the limit, or burner or pilot go out, gas is automatically turned off by the control system. Contemporary styling eliminates louvers and features a perforated snap off-snap on door.



Above: Cooler

Left: Furnace

Portable Evaporative Cooler

"MAGIC-AIRE PORTACOOLER" portable evaporative cooler for use in areas not subject to consistent relative humidity of over 72 percent — Gene Brown, 316 Senisa Dr., San Antonio. The unit is 24 x 19 x 34 1/2 in., equipped with a 16 in. fan giving 2000 cfm at high speed. Three speed switch and 6 ft cord are included. Water capacity is 10 gal. The cooler can be transported in a car or rolled from room to room as needed in the home.

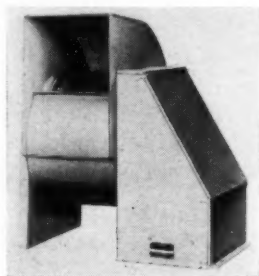
Stud Welding Gun

MODEL NS-9 stud welding gun with cable and controls in two sizes, one for welding studs with up to 1/2 in. diameters, the other for diameters from 10 gage to over one inch. — Nelson Stud Welding Div., Gregory Industries, Inc., Toledo Ave. and E. 28th St., Lorain, O. Versatility-increasing factors

claimed by the company include greater range of stud length without changing adaptors or other equipment; adjustable arc length without disassembly; greater lifting power through new coil design; accurate stud alignment and precision balance through smooth barrel design and elimination of side cable loop; increased operating efficiency and simplified maintenance due to elimination of two electrical connections.

Self Contained and Direct Drive Blowers

"ENCLOSED DRIVE" self contained enclosed blower requiring minimum floor space and equipped with adjustable motor base for periodic belt adjustment —



Utility Fan Corp. Div., Utility Appliance Corp., 911 E. 59th St., Los Angeles 1. Motor and drives can be replaced without disassembling any part of the blower. Weatherproof covers have been incorporated as a standard feature of blowers geared for outdoor installation. Pre-greasing and permanent sealing keep ball bearings impervious to dust, dirt, moisture or excessive temperature changes, the company states. Wheel diameters range from 10 in. to 36 in. Also available is a direct drive blower with blower wheels fitted with a neoprene hub to isolate motor noise and reduce vibration. The special device is being incorporated into all the company's direct drive blowers.

Condenser and Evaporator Coils

COMPLETE RANGE of condenser and evaporator coils for room and residential air conditioners, self contained equipment, portable refrigeration and air conditioning units — Perfex Corp., 500 W. Oklahoma Ave., Milwaukee 7. Fabricated to specification, coils range in capacity from one-third to three hp for room air conditioners, and two to ten tons for residential and self-contained applications.

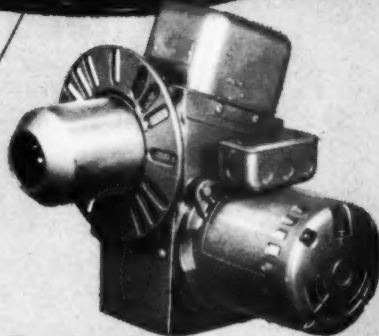
Aluminum Roofing Shingles

"ALUMISLATE" shingles which combine the practicality and versatility of aluminum with the rich appearance of slate — Building Products Div., Reynolds Metals Co., 2500 S. Third St., Louisville, Ky. Requir-

for the **SMALLEST JACKET
EXTENSION**

for the **MOST LIMITED
CLEARANCES**

use the
NEW



SUN-RAY BANTAM

Now you can have a burner compact enough to fit the smallest jacket extensions without sacrificing quality or efficiency. Fitting a minimum extension of only 8 3/4" and measuring 15 1/4" wide, the Sun-Ray Bantam makes possible important space savings in the design of boiler and furnace units with limited clearances.

Despite its truly small dimensions the Bantam has the same high quality construction and efficiency as all Sun-Ray burners.

FEATURES

Exclusive Perimi-T-Aire Metering* for uniform, unimpeded air intake—eliminates all dead spots. Finger-tip dial facilitates precise adjustment of air volume.

One Piece Precision Machined Casting with housing scroll designed for smooth, efficient air delivery.

Pressure Seal Design assures efficient, quiet, uniform air delivery. Unique bulkhead seals low pressure from high pressure air, eliminates pulsation.

Plus: The use of highest quality standard parts throughout; easy servicing, with swing-away transformer exposing all vital parts. All models are approved by Underwriters Laboratories, Inc., C.S.A. and all other leading authorities. Capacity is 0.5-2.00 g.p.h. Available flanged or base mounted.

*Patent pending



ATTENTION BOILER AND FURNACE MANUFACTURERS — Sun-Ray's engineers will cooperate in adapting the Bantam to your particular requirements. Write for details.

Sun-Ray Models from 0.5 to 22 g.p.h.



SUN-RAY BURNER MFG. CORP.
139-34 QUEENS BLVD. • JAMAICA 35, N. Y.

Auto flo FUEL OIL FILTER



Model F 300



EASY to install **SURE** to satisfy
STURDY trouble-free design
eliminates needless callbacks

Guarantee your customers steady, maximum heating efficiency with the Auto-Flo Fuel Oil Filter. All wool felt cartridge filter plus fine mesh screen core removes all dirt, scale, water and foreign matter before they reach the burner, assuring a clean, free-flowing oil supply. Hexagon extensions for easy installation of oil line fittings. One piece cast bowl has strong bolt spud.

Auto-Flo Corp., 14590 Schaefer, Detroit 27, Michigan

Please send me full information on:

- ☐ Auto-Flo Fuel Oil Filter
☐ Auto-Flo "100" Automatic Humidifier

Name _____

Address _____

City _____ Zone _____ State _____

equipment developments

(Continued)

ing a minimum of upkeep, the shingles will not break, curl, split, deteriorate or swell, according to the company. Interlocking construction prevents leakage from capillary action of water and conceals nails. Additional features are natural reflectivity of radiant heat, non-inflammability, easy application over deteriorated roofing material and secure anchorage.

Winter and Summer Air Conditioners

GAS FIRED counterflow furnace designed to meet demand for perimeter heating in slab or crawl space, and horizontal cooling unit particularly adapted for



attic and crawl space locations — Surface Combustion Corp., 2375 Dorr St., Toledo 1. Furnace features "Multithermex" heat exchangers and ribbon flame burners. Blower is sized for conventional or small duct systems. Furnace is available in 80,000, 100,000 and 120,000 Btu input. Cooling unit, available in two and three ton capacities, is designed for application with a separate blower. Refrigerant system is hermetically sealed.

Oil and Gas Furnaces

"RANCHIEF" furnace series in 9 models covering a range of 56,000 to 90,000 Btu, oil or gas, counterflow and conventional delivery — Conco Engineering Works, Heating Division, Mendota, Ill. Highboys permit right or left side or bottom return air entry, right or left side gas connection. Oil models are convertible to gas without loss in capacity, the manufacturer states, and gas burners burn any commercial gas. Furnace is completely accessible through the front cabinet opening. Noise is reduced by glass fiber insulation and oversize blower. Modern cabinet is finished in white baked enamel. Cabinet extension for basement installations serves as return air channel.

Hand Truck for Stairs or Ramps

"STAIR CART" stair climbing hand truck equipped with special ratchet mechanism which enables it to roll up stairs step by step as the operator pulls a cable drive — Valley Craft Products, Inc., 750 Jefferson Ave., Lake City, Minn. Two wheel safety

equipment developments

(Continued)

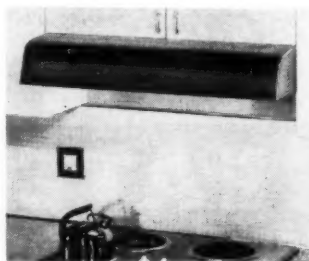
brakes are said to allow control at all times. The truck is equipped with large pneumatic tires which add to operating ease and prevent marking of steps.

Shearing Head for Hand Drill

"DRACO-SHEAR" universal cutting attachment which converts a $\frac{1}{4}$ in. electric hand drill into a precision tool for cutting up to 16 gage sheet metal — Ger-Am Imports, Box 867, Evergreen Park Br., Chicago 42. Said to cut clean without burrs and require no reworking after cutting, the attachment is designed for curved and angled cuts starting from a $\frac{5}{16}$ in. hole. The tool is complete with attachment clamp and necessary hardware.

Kitchen Ventilating Hoods

HOME KITCHEN ventilating hoods which adjust to fit almost any length cabinet and are available in copper or stainless steel brushed finish — Trade-Wind Motors, Inc., 7755 Paramount Blvd., Rivera, Calif. Hoods are designed for use with "Super Clipper" kitchen



ventilator fan which installs in a cabinet directly over the range; they are also available separately. Baffle plate provides even distribution of the air movement over the cooking area. Hoods are in two expandable sizes, 30 to 42 in., and 42 to 54 in.

Light Duty Torch

"AIRCRAFT" torch with swaged or separable welding tips — K-G Equipment Co., 1744 Lehigh St., Allentown, Pa. Lightweight torch features quick changeover from one cutting tip to another or from welding to cutting without using a wrench, positive flashback resistance, and protection of critical seating surfaces from damage while affording easy accessibility. As a cutting torch it is 14 oz, 12 $\frac{3}{8}$ in.; as a welding torch with largest tip it is 6 $\frac{1}{4}$ oz, 10 $\frac{1}{4}$ in. Welding range is lightest gage to $\frac{1}{4}$ in. plate.

Oil Fired Water Heater

OIL FIRED domestic hot water heater in two capacities, 30 gal and 40 gal — Quiet Automatic Burner Corp., 3335 Bloomfield Ave., Newark 4, N. J. Small size has



"Quick Lock" round pipe can be put together with ease right on the job. Just insert tongue on one edge into fold on opposite edge (Fig. 1) and push until it snaps (Fig. 2). No hammers or tools needed.

Ohio Valley "Quick Lock" pipe makes the job go much faster — and can be cut to any length at time of installation. It's smooth on the outside, has no raw edges, and cannot expand or collapse.

**Save Time and Make a Better Installation — With
Ohio Valley "Quick Lock"**

The Only True Quick Lock Made

Carried in Stock by Leading Wholesalers



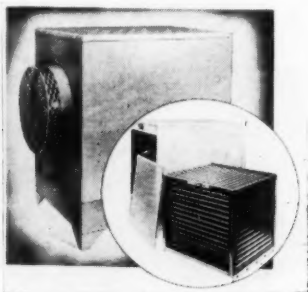
OHIO VALLEY HARDWARE CO., Inc.
MANUFACTURING DIVISION, EVANSVILLE, IND.

equipment developments (Continued)

five fire tubes with 1.0 gph nozzle; larger size has 16 fire tubes with 1.3 gph nozzle. Refractory material is cast in the base. Recovery rates are 90 and 180 gph respectively, with 80 deg temperature rise for both. Tank shell is 10 gage galvanized steel.

Cooling Towers

"SUMMER SHOWER" aluminum and stainless steel cooling towers designed to provide 2, 3 or 4 ton capacities by interchange of fan blades only — Silver-



craft, Inc., 120 S. Floyd, Louisville, Ky. The same feature in a larger unit provides 5 or 7½ ton capacities. Entire all-aluminum wet-deck cartridge slides out on stainless steel rails for cleaning or replacement.

Protection for surfaces exposed to recirculated water is provided by No. 406 plastic coating; stainless steel fastenings are used throughout. The body is of bright stucco aluminum with baked-on enamel.

Gas Water Heaters

THREE ADDITIONS to the present line of water heaters — Southern Heater Corp., Compton, Calif. Line is offered in three series, each of which is available in 20, 30, 40 and 50 gal sizes; all are equipped with a "Thermo-Magic" thermostat control which features a thermo-magnetic gas flow valve, valve-action pilot lighting, snap-action high valve lift and fingertip dial temperature indicator.

Throwaway Filter for Air Conditioners

"AEROSOLVE" filter, said to require no maintenance except for infrequent cartridge replacement — Cambridge Filter Corp., 738 Erie Blvd. East, Syracuse, N. Y. The fire-resistant filter consists of a cadmium-plated steel frame containing the replaceable filter cartridge. Three interchangeable cartridges with different filtering media provide efficiencies of 95, 85 or 35 percent, according to the company. Performance depends on special glass fiber mats and large filtering area achieved by a deep-pleated design. Initial pressure drops for the cartridges range from 0.35 in. WG to 0.16 in. WG. The new filter is manufactured in

At Last! A WALL HEATER YOU CAN GUARANTEE



For conventional or prefab homes needing 1,000 to 60,000 Btu. Special "knock-out" sections for easy installation of one, two or three adjustable registers. Height: 51 1/4" — Width: 24 3/4" — Depth: 26 1/4".

Customer Satisfaction Assured With the NEW Forced-Draft QUINCY-MONOGRAM RECESSED Oil-Fired HEATER

- Clean and carefree: no soot, no smoke, no odor.
- Compact, easy to install: neatly "self-trimming", pre-assembled and delivered in one completed package.
- Works when others fail: requires only .03" chimney draft.

Now, the long-awaited answer to dependable low-cost heating AND a new source of *extra* sales. With features found in no other wall furnace—at any price! Famous "Magic-Mixer" burners give clean flame even at lowest heat. Single fan furnishes forced draft to burner, draws in cold air, circulates warm air. Complete with new limit control; choice of wall electric or modulating thermostat. Looking for increased sales and profit? Write today for further information.

See it at International Heating and Ventilating Exposition . . . Booth S-51, 53

THE QUINCY STOVE MANUFACTURING COMPANY
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Quincy, Illinois

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wall
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ANY
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equipment developments

(Continued)

standard capacity of 1000 cfm and in smaller capacities to 125 cfm.

New Heating Line Introduced

COMPLETE LINE of central heating and air conditioning equipment has been added to the present line of gas equipment — Temco, Inc., 4104 Park Ave., Nashville 9. Temco had previously confined its production largely to gas wall heaters, floor furnaces and space heaters. Plan now call for lowboy furnaces ranging



from 90,000 to 170,000 Btu input; highboy models 62,500 to 160,000 Btu; gravity furnaces from 70,000 to 125,000 Btu; horizontal furnaces from 65,000 to 140,000 Btu; counterflow furnaces from 80,000 to 125,000 Btu. Summer air conditioning units from two to five ton capacity will be introduced for use with the central heating units in a package or as individual units.

Rain Cap for Packaged Chimney

CEMENT-ASBESTOS rain cap which eliminates downdraft in a packaged masonry chimney — Van-Packer Corp., 1049 State St., Bettendorf, Ia. Comprised of rain cap, stand and housing cap, the unit is designed to replace the separate chimney pot, pegs, rain cap and housing cap, and is included in the company's packaged masonry safety chimney. The chimney can be installed either as an original unit in new buildings or as a replacement chimney. Each chimney comes completely packaged and can be applied wherever an 8 × 12 in. standard code brick chimney is used.

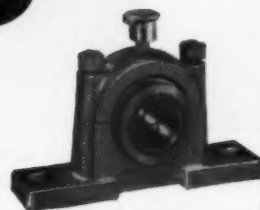
Rapper for Cleaning Precipitators

MODEL MI rapper for automatic and continuous cleaning of the collection electrodes in an electrostatic precipitator — Research-Cottrell, Inc., 405 Lexington Ave., New York 17. Frequency of rapping the collec-

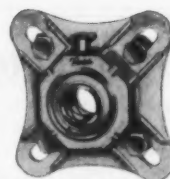
FOR Automatic
Protection USE
Randall
SELF-LUBRICATING
PILLOW BLOCKS



SELF-LUBRICATING

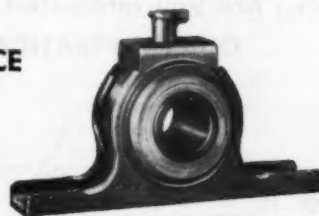


SELF-ALIGNING



EXCELLENT SERVICE

MINIMUM MAINTENANCE



LONG LIFE

The proven design of Randall's self-aligning, self-lubricating pillow blocks is in keeping with today's trend toward more and more automatic type machinery and equipment. Every Randall pillow block utilizes the exclusive Randall "deep well"® ball assembly that offers a unique double lubricating principle. It combines Randall's exclusive graphited bearings with grease or oil type lubricants which assures controlled, automatic lubrication for long periods of trouble-free operation.

If you use bearings on your equipment it will pay you to investigate Randall . . . the most complete line of graphited bronze sleeve bearing pillow blocks available anywhere. Write us, today!

BRONZE BAR STOCK

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PILLOW BLOCKS

SHEET LUBRICATOR

GRAPHITED BEARINGS

THRUST WASHERS

SAFETY COLLARS

BRONZE CASTING



RANDALL GRAPHITE BEARINGS, INC.

1000 S. Greenlawn Ave., Lima, Ohio

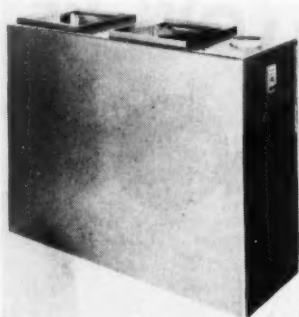
equipment developments

(Continued)

tion electrode is controlled by a distributor switch and can be adjusted. Rapping intensity is controlled by a dial setting which regulates the primary voltage input to the transformer, resulting in removal of dust particles from the filter plates.

Gas Fired Lowboy Furnace

MODEL GLA gas fired lowboy furnace designed for basement installation and available in eight sizes from 75,000 to 300,000 Btu input — Sunbeam Air Condi-



tioner Div., American Radiator & Standard Sanitary Corp., Elyria, O. All steel unit is completely assembled

and wired. Five smaller sizes — 75,000 to 175,000 Btu input — are shipped in a single carton; three larger sizes are shipped with blower section separate. Engineered with a special heating element and ribbon burners, the unit burns all gases. Blower is cushion mounted; jacket is heavy gage steel.

Gymnasium Grille

GRILLE ESPECIALLY designed for rugged application in school gymnasiums — Titus Mfg. Corp., 113 E. Eighth St., Waterloo, Ia. The grille, containing no sharp points or corners, is safety approved for school use. Model G-1 is grille face only; model G-2 has attached volume controller featuring solid section extruded aluminum louvers. Grille face has 14 gage, round edge, flat wire steel blades and vertical steel support bars placed on 6 in. centers. Easy mounting is provided by 16 gage extra wide borders.

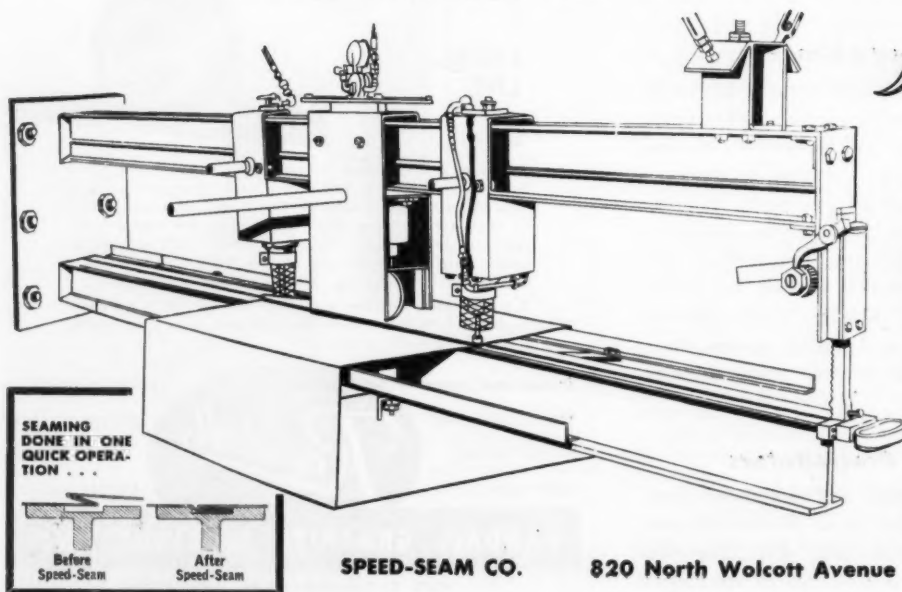
Welder-Power Plant Combination

"PORTO-ARC" gas driven welder and all-purpose power plant combination — Marquette Mfg. Co., Inc., 307 E. Hennepin Ave., Minneapolis 14. Specially designed engine gives up to 200 amps at 100 percent duty cycle plus a power source of $4\frac{1}{2}$ kw at 110-120 volts for operation of heavy duty power tools or lighting circuits. The unit provides 100 cycle a-c power for arc stability and also delivers a 1000 watt d-c power source.

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... QUIET OPERATION? ... SURE YOU ARE! BETTER INVESTIGATE ...



Speed Seam
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Here at last is a practical method of getting a perfectly smooth seam on ductwork in a matter of seconds! The SPEED SEAMER will turn out over six times more work than your present hand seaming methods!

SPEED SEAMER needs no more shop space than the "I" beam you now use, and it will easily and quickly handle ducts up to 10' in length and 5' in width.

Operates on compressed air system.

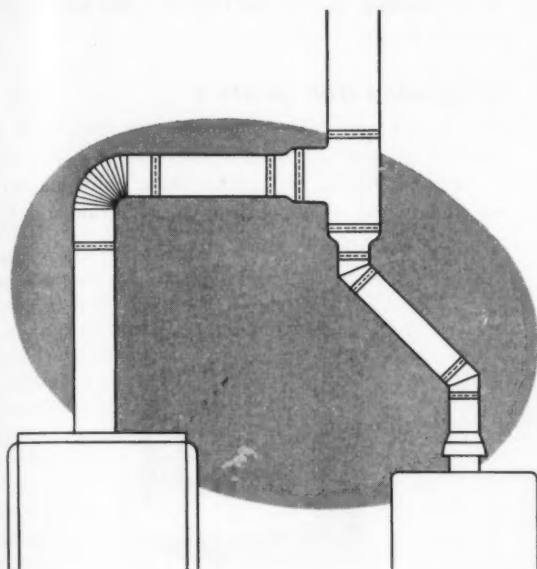
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820 North Wolcott Avenue

Chicago 22, Illinois

Is this your "COMPLAINT ZONE?"



Is this critical venting area between gas appliance and main vertical vent causing you complaints — complaints about property damage and unhealthy conditions? Is it causing costly repairs or frequent replacement of rusted out vent pipe? It could be — if you're installing a single-wall, uninsulated vent connector that invites excessive heat loss and often results in condensation or spillage.

THE SOLUTION: USE METALBESTOS

Be sure that **both** the connector and main vent are Metalbestos. This double-wall, **insulated** vent pipe conserves the vent gas heat and assures sufficient power for the safe, complete removal of all vent gases and the water vapor they contain. Use Metalbestos for your next job and eliminate customer complaints.

METALBESTOS CUTS LABOR COSTS

Metalbestos offers big savings in installation time because it's easy to handle, quick to assemble. Adjustable fittings eliminate costly cutting and fitting. No cementing is required — no heavy bracing needed. Figure your next bid with Metalbestos for a better job at a low **installed** cost — a job that assures customer satisfaction.



USE METALBESTOS
— it costs less
to be sure with the best.

Listed by Underwriters' Laboratories, Inc. as a Type B vent for use with approved gas appliances.



Stocked by principal jobbers in major cities. Factory warehouses in Atlanta, Dallas, Philadelphia, Des Moines, Chicago, New Orleans.

CUT COSTS! GET BUSINESS WITH SILENT DUCT

TRADE MARK



Pre-assembled metal and material pulls out **FLAT**, ready to fabricate

FOR FLEXIBLE duct connections, Silent Duct is tops from every angle. It costs about half as much as attaching material to metal in your own shop... helps you land business in a competitive market. It's a *standard* product; absolutely uniform in construction; outstandingly strong and dependable. It's made in your choice of 24 or 26-gauge galvanized steel fastened to either fire, water and mildew-resistant UL approved canvas (Govt. Spec. MIL-D-10860), Johns-Manville asbestos, (wire-filled, if desired), or U.S. Rubber Co. Neoprene coated fibre glass.

Elgen Silent Duct is delivered in 100-foot* (approx.) coils in a handy dispenser carton... *pulls out flat as a pancake* and you only have to cut *one* thickness of metal! Order Silent Duct from your jobber and write us for free folder that tells the whole Silent Duct story. Elgen Manufacturing Corporation, Dept. A-1, 41-34 39th St., Long Island City 4, N. Y. *50-foot coils with asbestos are available

See us at the
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Commercial Museum • Philadelphia • Jan. 24-28
Booth 5-92

ELGEN
SILENT DUCT

UNION MADE • PATENT PENDING
SAVES ASSEMBLING FLEXIBLE CONNECTORS

Guarantee

Carefree Fuel Supply

in Oil Burner Sales

with combination

VENTALARM® GAUGE

Underwriters' Approved



The famous whistling tank fill signal and easy reading gauge in one money-saving unit. Goes on tank as integral part of vent pipe. Signal case takes the place and saves cost of reducer bushing. One less tank opening needed. One item to install instead of three.

Specify tank depth and opening when ordering.

"BUTTON-LIFT" INSTALLATION

Lifting the button indicator draws cork arm up close to main shaft for easy installation even in partly filled tanks.



or the

SCULLY® GAUGE

Underwriters' Approved



A modern convenience in every way. Big figures, adjustable face, jam-proof lever arm, cork float. Accurate service-free operation.

Specify tank depth when ordering.

**AT THE SHOW
BOOTH 833**

and the famous VENTALARM

WHISTLING TANK FILL SIGNAL

Accurate fuel oil delivery without home entry. Truly automatic fills for the householder. Makes oil supply as clean and convenient as any other fuel.

A variety of models for new and old tanks.

Scully Products are manufactured under U.S. and foreign patents or patents pending.



"Just fill while the whistle blows."

See your regular Supply House.

SCULLY SIGNAL COMPANY

174 Green St., Melrose 76, Mass.

OHIO

Canadian Licensee: EMPIRE BRASS MFG. CO., LTD., London, Ontario

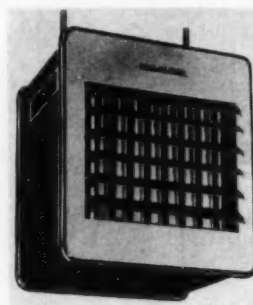
equipment developments

(Continued)

The unit is offered as a welder only or as a combination welder and power plant. Optional equipment includes running gear, road trailer, ready-pull starter and canvas cover.

Suspended Unit Heaters

VGU SERIES suspended unit heaters for installation in low ceiling areas — Vacuum Gas Burner Corp., 132 N. First St., Olean, N. Y. Units have individual styling highlighted with polished chrome trim and fin-



ished in baked, light gray two tone enamel. Ease of installation and service are also claimed for the units which are available in four sizes: 30,000, 50,000, 75,000 and 100,000 Btu inputs for natural, manufactured, mixed and LP gases.

Home Air Conditioners

"CLIME-MATIC" floor, wall and ceiling air conditioning units ranging from two to ten ton residential models — Clime-Matic Corp., Connecticut and Richards Ave., South Norwalk, Conn. Encased in modern cabinets and equipped with semi-hermetic motor-compressor units, they are available for standard electric power sources. Other models have self-contained gasoline or kerosene power units for use where there is no external power source.

Braille Thermostat for Fingertip Control

BRAILLE THERMOSTAT designed for use by the blind — Minneapolis-Honeywell Regulator Co., 2726 Fourth Ave. S., Minneapolis 8, Minn. Created for use in a home built and furnished by donations for a sightless veteran, the round thermostat is adjusted by aligning a notch in the knurled plastic setting ring with one of three buttons on the cover which correspond to 60, 70 and 80 deg thermostat settings.

Window Air Filter With Heater

"THERM-AIRE" window air filter with thermostatically controlled heater coil — Air-Net Appliance Co., 1550 E. 53rd St., Chicago 15. Heater coil reacts to out-

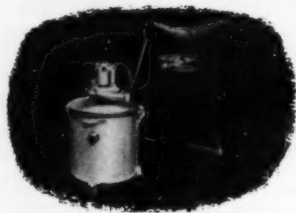
now! new SPIC-SPAN

latest, low cost furnace, air
conditioning and boiler cleaner

At last, a machine that meets the demands of long-time furnace cleaning men at low, low cost. A small (19" high, 14 1/2" dia.) completely portable (28 lbs.) cleaner that offers the utmost in rugged, long-lasting quality. The most modern design features... new SPIC-SPAN filter gives 3 times more area in same size filter—special disposable filter protects permanent one against acid damage. Full 1/2 bushel capacity, rugged 1/2 h.p. motor that produces 83 cubic ft. per min. air flow. Standard tools include, a 10 ft. flexible metal hose. Get the details and compare with any other cleaner. Only PREMIER measures up to all industry standards.



"OLD RELIABLE"



Model 908F, the first and still the finest truly heavy-duty furnace and boiler cleaner. Designed for powerful, compact efficiency; built for the ultimate in versatility and long life. One bushel capacity, weighs just 43 lbs. Big 1625 sq. inch filter area. 1

h.p. motor converts quickly to a powerful blower or hand cleaner. Comes complete with hoses and all cleaning tools. The superior cleaner that answers every need.

Both Premier machines listed by Underwriters' Lab. and Canadian Standards Assoc.

Get all of the facts and full specifications.

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35 Gerrard St. West, Toronto 2, Canada

Designed especially
for use by **TINNERS**



Illustrated at left: No. LP900 Fire Pot complete with 11-lb. tank. (No. LP901 has 5-lb. tank; No. LP902 has 20-lb. tank.) Below: No. LP906 Furnace Assembly (to fit on tank with 3" flange-type valve) and No. LP907 Base (for use with No. LP906 to convert Assembly to bench-type furnace).



NEW Turner U-type burner and heating chamber designed for the quiet, clean, economical operation formerly found only in non-portable indoor installations.

TURNER



TINNER'S FIRE POT

Instant-lighting and fast-heating... ready for immediate operation • Gas and air controls... equipped with both for easy adjustment to any desired flame volume • Low cost operation... saves money by saving warm-up time • Safer and cleaner... no fuel spilling; virtually tip-proof; clean flame; chemically stable fuel is non-toxic, non-explosive from concussion, produces no noxious fumes • Large heating chamber... accommodates two 8-lb. coppers or three 6-lb. coppers without crowding • Portable, balanced... entire unit, including coppers, may be carried by the bail easily and without tipping • Developed for all industrial and residential sheet metal applications; tested and job-proved by tinner's in actual use!

THE TURNER BRASS WORKS



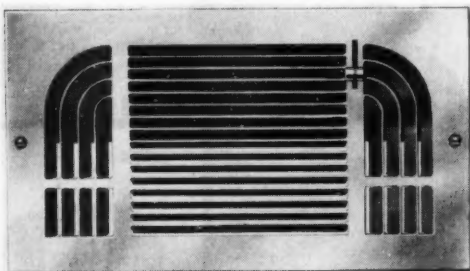
Since 1871

equipment developments (Continued)

side and room temperature and air volume. Filter unit is permanent, washable aluminum 2 in. thick, designed for efficient dust, smoke and pollen removal. The unit can be adjusted to recirculate and refilter room air, acting as a supplementary heater; in warm weather, cool night air is brought in and recirculated during the day.

Wall Diffuser

"RAINBOW" wall diffusers for perimeter installations requiring either high or low face discharge velocities — A & A Register Co., 8327 Clinton Rd., Cleveland 3.



Available in six sizes, 10 × 4 in., 12 × 4 in., 14 × 4 in., 10 × 6 in., 12 × 6 in. and 14 × 6 in. the diffuser

is designed to direct air in a 180 deg pattern (parallel to the floor) and to introduce room air into the air stream leaving the diffuser.

Silicate Coating For Metal

SILICATE COATINGS which can be fused to any ferrous metal at temperatures under 1250 deg — Allied Porcelain, Inc., 1921 W. Grant St., Phoenix, Ariz. The corrosion-proof coatings of ceramic materials are in the form of frits or premilled compounds which are mixed with water and color oxides; the slurry is applied to clean basis metal, warmed to evaporate the water, and fused at temperatures as low as 900 deg, according to the company. Because of the low firing temperature, warpage of the basis metal is said to be almost eliminated. Composed of several abrasive minerals, the silicate provides a combination of permanence, variety of color and texture possibilities, and non-inflammability, the company states.

Solenoid Gas Valve

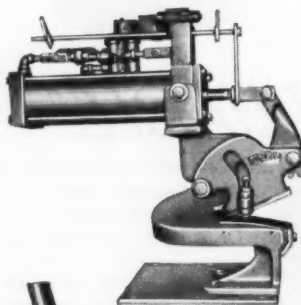
SOLENOID GAS VALVE designed for use on all types of gas burning appliances and with all types of gases — Crise Controls Div., Acro Mfg. Co., 2040 E. Main St., Columbus 16, O. Corrosion resistant construction makes the valve especially suited for use with *sour* gas. Featured are soft-seat construction, quiet operation, positive shutoff and high capacity rating. The

Beverly Shears MEAN BETTER WORK



THROATLESS SHEAR

Make straight or intricate cuts in the lightest metals without distortion, yet handle heavier gauges with ease on a BEVERLY — the all-around Throatless Shear. Made in 4 models to handle 18 gauge to 3/16". Equipped with High Carbon, High Chrome Blades.



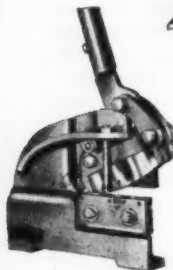
BEVERLY PNEUMATIC SHEAR

All the advantages of Beverly Throatless Shear with fast power operation. Operates on shop air pressure. Stroke adjustable for length and speed. Capacity to 3/16" mild; 10 ga. stainless.



INSIDE SLOTTER

8" reach, Inside Slotter, design to make inside cutting and slotting faster and easier. Capacity up to and including 16 ga. mild. Cuts slot 2 1/2" long x 1/8" wide with one stroke. Unique arrangement of 5 H.C.H.C. blades assures fast, clean, accurate cutting.



SLITTING SHEAR

All steel welded construction, plus extra built-in strength keeps the "SS-3" Slitting Shear cutting clean indefinitely. No springing of blades, no distortion after use. Slitting capacity 3/16" mild steel; trimming capacity 5/16"; bar capacity 1/4" x 2". Equipped with High Carbon, High Chrome Blades. Made in 3 sizes.

See your Dealer or Write direct for illustrated catalog sheets on Beverly equipment.

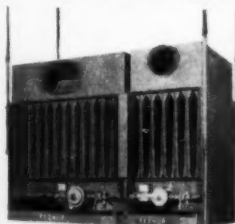
THE BEVERLY SHEAR MFG. CO.
3020 W. 111th Street Chicago 43, Illinois

install the *ideal* system
for every heating job
with these **2 New** Reznor
duct furnaces

Meet the *exact* requirements of every heating installation by combining a Reznor duct furnace with equipment for air moving, cooling, cleaning and humidification—selected individually to provide maximum efficiency at lowest cost. These new Reznor units (basically nothing more than compact, lightweight, highly efficient heat exchangers) will greatly increase the number of jobs on which you can give your customer *exactly* what he wants and needs.

The two new series include capacities to fit any system you may need for comfort or process heating in commercial and industrial buildings. The smaller units will help solve some tough residential heating problems, too. And to greatly simplify your installation problems where large capacities are required, Reznor engineers have introduced a completely new concept—sectionalized assembly. Now you can assemble—from sections weighing no more than 315 pounds—systems with capacities of 2,000,000 BTU and more.

SERIES DS — 150,000 to several million BTU



An unlimited number of sizes ranging in steps of 50,000 BTU from 150,000 into the millions is achieved by assembly in combinations of four basic sections. Revolutionary sectional assembly, in addition to simplifying installation, provides for independent operation of one or more sections in periods of less than peak load. Each section complete with controls and built-in draft diverter. Sections may be installed side-by-side in a single bank or back-to-back in a double bank.

SERIES D — 50,000 to 125,000 BTU

Attractively-styled so that they may be installed out in the open. Complete with combustion controls and built-in draft diverter. Burner access and controls completely enclosed on one side. Four sizes: 50, 75, 100 and 125,000 BTU.



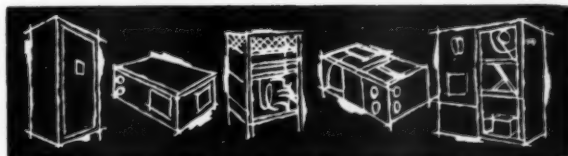
Suggestions on how you can cash in on the opportunities presented by these two new duct furnaces, plus complete details on their construction and performance are included in two new bulletins, B-55-D and B-55-DS. Write for your free copies today. **Reznor Manufacturing Company, 53 Union Street, Mercer, Pa.**

REZNOR
THE WORLD'S LARGEST-SELLING
GAS UNIT **HEATERS**



America's most comprehensive residential AIR CONDITIONING line for 1955!

- AIR COOLED (waterless) and WATER COOLED
- Greater profits
- Priced below competition
- Superior quality
- Ideal for any home in any state
- Performance proved sales plan



See the Shana exhibit, booth S-46, 12th International Heating & Ventilating Exposition, Commercial Museum & Convention Hall, Philadelphia, Jan. 24-28

If you won't be at the show, write for additional information today.

Exclusive Territories Still Open

SHANA MANUFACTURING, INC.

188 W. Randolph Street
Chicago 1, Illinois

Gentlemen:
I am interested in knowing more about SHANA-AIR HOME AIR CONDITIONING.

☐ DEALER ☐ DISTRIBUTOR ☐ MFG. REP.
Others Please Specify

Name _____

Firm _____

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City _____ Zone _____ State _____

First Time Ever Offered
NEW "Positive Lock"
PIPE HANGERS

for ROUND PIPES

Eliminate old fashioned methods of hanging pipe on heating and cooling installations ... cut costs and do a neater job. Hangers available in Six Lengths, from 2 3/4" to 11".

PATENT PENDING

PIPE

PIPE

PIPE

- Sharp prong pierces pipe
- Insert "Positive Lock"—tap in place
- Drive sharp prong into joist

Cam Action Assures "Positive Lock"

AS LOW AS 2 1/2¢ EACH

IMPROVED SQUARE DUCT HANGER

With New "Positive Lock" cam action feature... No Special Tools! Hammer does the Job! Available in six lengths.

PAT. NO. 2563242

DUCT

DUCT

DUCT

- Sharp prong pierces duct
- Insert "Positive Lock"—tap in place
- Drive sharp prong into joist

SEE your **SUPPLIER** or **WRITE** for **FREE samples** TEST THEM YOURSELF ON THE JOB!

A. M. HEXDALL CO.
 MORRIS, ILLINOIS
 Manufacturers of Sheet Metal Specialties

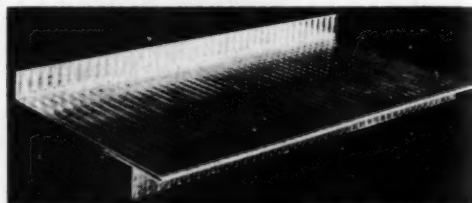
equipment developments

(Continued)

valve is available in 1/2 and 3/4 in. sizes, 24 or 115 volts, and with or without a manual opener.

Copper Flashing Receiver

"EASY CAP" solid copper flashing receiver in 10 and 16 oz thicknesses and standard 8 ft lengths — Chase Brass & Copper Co., 236 Grand St., Waterbury 20, Conn. Retaining the nonclosing feature of the com-



pany's one piece through-wall flashing and cap flashing receiver, the product permits the contractor to form cap flashing to fit job conditions. Made of cold rolled copper because it is not bent after formation, it does not have to be installed until roof and base flashing are completed. Horizontal flange can be built into the wall for increased water-tightness and permanence.

Clay Duct Material

"CERAMIDUCT" clay duct material for perimeter and radial underfloor heating duct systems — Straitsville Brick Co., New Straitsville, O. Made of vitrified fire clay in 6, 8, 10 and 12 in. diameters, the material is said to resist thermal shock, heat, rust, corrosion and disintegration. Package includes a choice of diameters, increasers, reducers, curves, ells, tees, wyes, covered register boxes and drawband pressure-seal joints. The system is placed on tamped fill or gravel over any accepted vapor barrier without anchoring.

Automatic Gas Water Heaters

"CRANE-MONEL" automatic gas water heaters in four residential and two commercial models — Crane Co., 836 S. Michigan Ave., Chicago 5. Tanks are of a rust-proof nickel-copper alloy and permit a stored water temperature of 180 degrees. Residential models have storage ratings of 21, 30, 30 and 42 gal with recovery ratings of 23, 30, 36 and 42 gph. Optional attachment for the three larger models permits use of water at different temperatures.

Attic Fans for Postwar Homes

LINE OF attic fans suitable for horizontal or vertical discharge installation — McLean Engineering Laboratories, Princeton, N.J. Available in 20, 24 and 30 in. sizes, the easily installed fans fit ranch house ceiling

- for Greater Strength
- for Longer Wear
- for Lower Cost



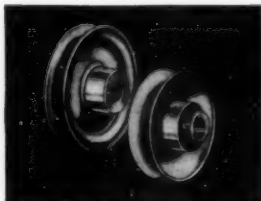
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AND 100% INSPECTED**

Used by a majority of the
largest Automobile and
Heating-Air Conditioning
Manufacturers.

Write for literature
and prices

Zatko
One Piece
Stamped Steel
**V-BELT
PULLEY**
for
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Air Conditioning
Equipment

Standard Fractional
Horse Power V-Belt Pul-
leys. All sizes in stock.
Variable Pitch. Allows
Speed Variation up to
30%. OD's from 3 1/4"
to 3 1/2".

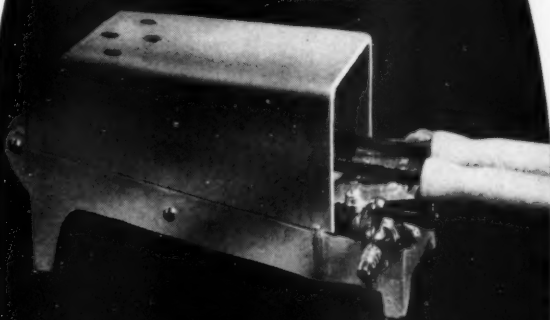


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Metal Products Co.
20850 St. Clair Ave., Cleveland 17, Ohio

The choice of the trade
is now **MOLENCO** made

ADDIS No. 2

**SOLDERING
FURNACE**



- ★ **FAST HEATING CAPACITY**
heats two 12-pound coppers in 4
minutes
- ★ **NO REPAIRS NECESSARY**
heavy cast body withstands hard use
- ★ **BURNER STAYS CLEAN**
dirt proof guard protects the burners
- ★ **FIRE BRICK FLOOR**
concentrates heat,
protects work benches

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-LENOIR**

MANUFACTURING COMPANY

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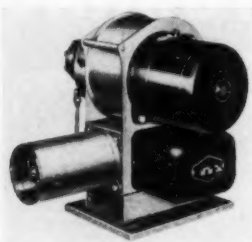
equipment developments

(Continued)

or multi-story attic endwall and are recommended for living space floor areas up to 1600 sq ft. Fans are designed for quiet operation with rubber vibration absorbers, rubber-mounted main bearings, flex-steel frame and isolated moving parts. Other features are deep drawn steel orifice for maximum air flow, efficient fan blades and automatic belt tensioning to eliminate slippage and belt wear.

Oil Conversion Burner

"ARCOFLAME" redesigned conversion burner for oil-fired installations — American Radiator & Standard

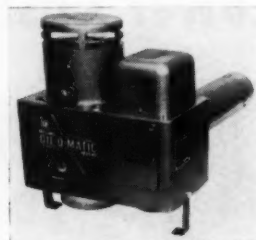


Sanitary Corp., Pittsburgh 30. Designed for adaptation to many heating requirements, the oil burner is available with varying gun lengths to fit a variety of

heating units, and is offered with pedestal, hanger or flange mountings. Oil flow is regulated to eliminate feedback hum and provide quiet operation.

Low Pressure Oil Burner

"OIL-O-MATIC" low pressure oil burner with only one internal moving part — Williams Div., Eureka-Williams Corp., 1201 E. Bell, Bloomington, Ill. Model R-



160 has eliminated the drive coupling and pump, yet suction is generated for an oil lift of 10 to 12 ft; only a single, unvented $\frac{3}{8}$ in. supply line is used, and air leaks in the oil line cannot affect operation, according to the company. Combustion air is established before the introduction of oil for smoke free starts; oil and air pass through the nozzle at balanced pressures. Air to the draft tube is supplied under constant static pressure, providing a steady supply at every firing rate from 0.4 to 1.6 gph.

AT IT SINCE '03

FLUXES
SODERING
BRAZING & WELDING
L. B. ALLEN CO. INC. Chicago 31, Ill.

FREE INTRODUCTORY OFFER — Tell us on your letterhead what samples you want, and what metals you solder. . . . we'll include free our new Jr. size scratch brush. Check samples here, and attach to your letterhead.

- ☐ 1 Soldering Salts
- ☐ 2 Soldering Paste
- ☐ 5 Stainless Steel Soldering Flux
- ☐ 6 Soldering Liquid
- ☐ 11 Solid Sal Ammoniac
- ☐ 18 Aluminum Soder



ALLEN SPECIAL STAINLESS STEEL SODERING FLUX

(Item 5)

Here's a remarkable fast flux that makes the soldering of stainless steel as easy as soldering tin plate. (Also available in a special odorless formula where less strength is required). "ALL-SOL" works with all solders but for best results use Allen stainless steel soder. Pints, gallons.



ALLEN SODERING SALTS

(Item 1)

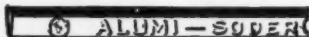
An all around flux in convenient powder form; just add water 3 to 5 times according to metal to be soldered. Solders all metals but aluminum. Takes a quick bite and makes the soder bold on. Non-acid. Comes packed in metal or glass as preferred. $\frac{1}{2}$ lb., 1 lb., 5 lb. sizes.

ALLEN ALUMINUM SODER

(Item 18)

Allen Alumi-Soder is a complete soder and flux combined. Requires only heat to permanently join aluminum to itself or other metals. Comes in $\frac{1}{4}$ " square wire form and triangular $\frac{1}{4}$ lb. and 1 lb. bars. Also in popular trial size pieces, called test pieces, $\frac{1}{4}$ lb. and 1" bar and wire form.

Also solders cast-iron.



ALLEN SODERING PASTE

(Item 2)



Standard Formula. Safest soldering paste made—fast working—a convenient corrosion-free, soft form of flux. Adheres to the surface while you soder. Assures secure electrical and mechanical joints. Saves time. Triples strength of the soder. Makes soder self-fluxing. Official National Underwriters Laboratory approved listing. 2, 4, 8, 16 oz.



ALLEN SODERING LIQUID

(Item 6)

Standard Formula. For all-around work, for all metals save aluminum and stainless steel.

17,000 pounds to the square inch with no gumming, fumes, or corrosion. Double strength, non-evaporating. Works like lightning. Adaptable to hand or machine soldering. Excellent for tinning the soldering copper. 2 oz., 4 oz., quarts and gallons.

ALLEN SOLID SAL AMMONIAC

(Item 11)



Speedily cleans and brightens the soldering copper. Outlives fibrous lump many times.

Six sided, solid, convenient. Does not crumble, nor corrode metal work, nor tools on the job.

L. B. ALLEN CO., Inc.
6702 Bryn Mawr Ave., Chicago, 31, Ill.

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For **SPEED AND EFFICIENCY**

Thousands of heating men and men working with downspouting use Malco Crimpers every day.

18 to 30 gauge capacity.

GUARANTEED
to satisfy

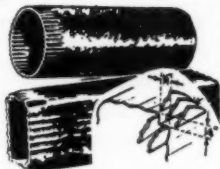
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PRODUCTS

Hand Crimper



Price
\$3.75



SCRATCH AWLS

GUARANTEED TO PLEASE, Awls have tough "Tenite-2" plastic handles. Blades will pound through several thicknesses of 24 gauge Steel. Awl is 5 1/4" long.



PRICE \$3.60 Doz.

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COMPLETE DAMPER

for the price of a quadrant

DAMPERS for
5", 4 1/2" & 4"
Round Pipe

Price per Gross \$21.60

Price per Dozen 1.90

**MAKE EVERY JOB
A BALANCED JOB**

at very little
extra cost



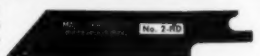
Malco HEAVY DUTY SAWGUN BLADES

All Blades Guaranteed

All "HD" Blades are thicker than standard, have hardened teeth and flexible back. They will cut through all wood, plaster and imbedded nails faster and with less bending and breaking than any other blade. They properly fit the major group of good saws now used for roughing in work. No's 2-3 & 4 Heavy Duty Blades are available in both 10 & 8 teeth per inch.

No. 3-HD priced each in lots of 10—29c, 50—27c, 100—25c & 250—23 1/2c.

The #4-HD and #4-HD8 Blades are full 6" long for deep cutting. The #2-HD and #2-HD8 Blades are used when only shallow sawing is required.



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or Write Today To

Malco

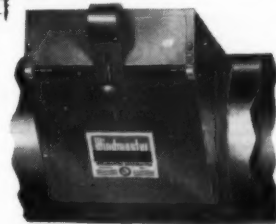
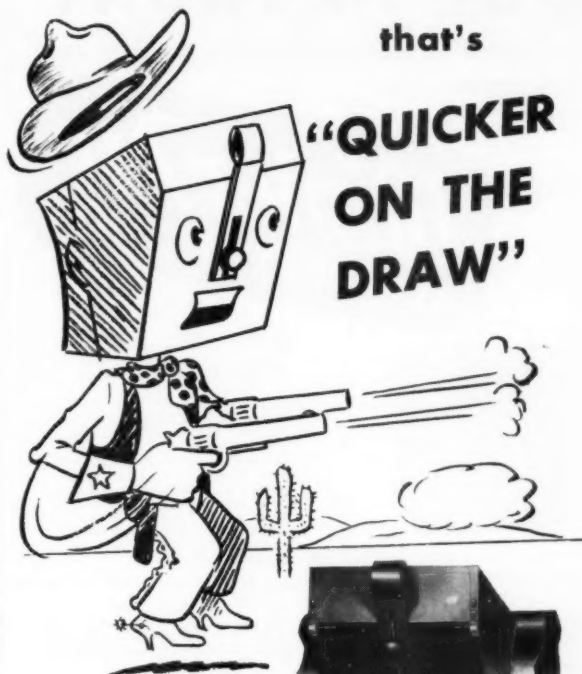
PRODUCTS

4032-12th Avenue So.
MINNEAPOLIS 7, MINNESOTA

The Modern Draft Control

that's

**"QUICKER
ON THE
DRAW"**



Trigger-ready for the slightest change in draft, the Windmaster vane is mounted for action! Starting at the important 45° angle, it doesn't have to make that nervous, ineffective trip from zero to 45 degrees.

At the slightest movement of the Windmaster vane, prompt relief is provided. Whether the split-second need is to open or close, Windmaster is "quicker on the draw." This can mean the difference between an efficient, smooth running installation and one that has the j-i-t-t-e-r-s.

You benefit by these Windmaster Features

- 45° Vane—no nervousness
- Large Square Vane—more effective area
- faster response
- Permanently Silent Non-Rusting Nylon Bearings
- Sloping Pipe Installations
- E-Z 'Dapter — quick, easy installation
- Calibrated Counterweight

It pays to say
"Windmaster" to your jobber

Windmaster Corporation

43 Vine St.

Columbus 15, Ohio

OUT IN FRONT

— because to solve any cooling problem you can depend on a

WinterAir

EVAPORATIVE COOLER



SIDE DISCHARGE



DOWN DISCHARGE

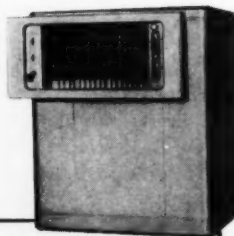
COMMERCIAL and INDUSTRIAL MODELS

Side Discharge or Down Discharge models. Engineered for efficient, economical cooling and ventilating of large areas. Entire cabinet of heavy-gauge steel, electrically all-welded, one-piece construction. Statically and dynamically balanced blower wheel. Adjustable drip troughs. Removable non-sag pads. Hammertone enamel finish.

24 MODELS TO CHOOSE FROM
3,000 CFM to 12,500 CFM
Single or 2-speed

WINDOW MODELS for Home and Office

More cooling capacity plus controlled air flow. All steel, all-welded, one-piece cabinet. 4-way grilles plus air control damper. Adjustable drip troughs. Hammertone enamel finish. No outside supports necessary.



16 MODELS TO CHOOSE FROM
2,200 CFM to 4,500 CFM. Single or 2-speed. With or without recirculating pump.



WINDOW FAN MODELS

Made in two CFM capacities. Flush window mounting. Heavy gauge steel cabinet finished in Hammertone enamel. 1 to 3-speed motors. No outside supports necessary.

3 MODELS TO CHOOSE FROM
1,250 CFM to 1,800 CFM
Single to 3-speed. With or without recirculating pump.

More than beauty goes into every WINTER AIR Evaporative Air Cooler. Research, engineering, new methods of production, improved materials and assembly line technique are only a few of the many reasons for superiority in performance, in construction and in customer preference.

Write for Our New Complete Catalog

J. R. DRY & SONS
WINTERS, TEXAS

new literature . . .

Sheet Metal Layout

LAYOUT PROCEDURES are reduced to common practice as performed daily in the sheet metal shop in the 224-page book, *Sheet Metal Layout Simplified*, by Hugh B. Reid—Edwards Bros., Inc., 1745 S. State St., Ann Arbor, Mich. The book is intended to serve as a constant guide in the solution of numerous problems that arise in the shop, drafting and engineering rooms. It is priced at \$5.50.

Porcelain Enameled Panels

"PORCELPANELS" — architectural porcelain enameled steel or aluminum — is the subject of a 12 page brochure, Bulletin No. 1154—Ingram-Richardson Mfg. Co., Beaver Falls, Pa. The panels may be of insulated or non-insulated design. Included are illustrations and architectural details for a number of buildings; specifications for porcelain enameled steel and aluminum; data on color, finishes and other properties; and a series of typical construction details.

Oil Burner Nozzles

OIL BURNER NOZZLES and nozzle accessories are graphically shown in catalog 148B (four pages)—Delavan Mfg. Co., Grand Ave. & 4th St., West Des Moines, Ia. Accessories described include nozzle filters, strainers and adapters, nozzle racks and a complete line of nozzle tools. Also available is a condensed catalog (347D) giving information on nozzles, nozzle accessories and nozzle tools.

Oil Burner Controls

EIGHT PAGE condensed catalog illustrates and describes controls for vaporizing oil burning appliances with manual and thermostatic operation—A-P Controls Corp., 2450 N. 32nd St., Milwaukee 45. These controls can be used on space heaters, floor furnaces, water heaters, furnaces, oil burners, etc. A selection chart lists 23 different basic types of constant level valves with copy identifying the application for each valve.

Draft Controls

SIX PAGE FOLDER — *The Story of Draft* — describes what draft is, what causes it to vary and how it may be controlled—Windmaster Corp., P. O. Box 776, Columbus 16. Cartoon illustrations are used throughout.

Baseboard Heating Units

INSTRUCTIONS for installing air baseboard units in various types and sizes of homes are presented in a four page, illustrated folder—Patco Mfg. Co., 231 N. Broad St., Philadelphia 6. The folder illustrates step-by-step application of the units to both basement

Wisconsin BURNERS



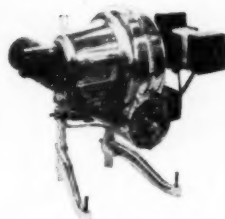
MODEL O



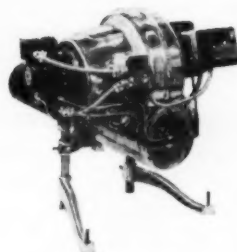
MODEL A



MODEL B-41



MODEL B-51



MODEL B-61

• A complete line . . . with Wisconsin Burners you can offer your customers a choice of 5 sizes. . . . from 0.65 G.P.H. to 25.00 G.P.H.

• Every Wisconsin Burner is factory tested under actual firing conditions. Their reputation for quality has made them a leader in the field.

• Available with the famous, efficient Shell Combustion Head.

FOR INFORMATION ON AVAILABLE TERRITORIES, WRITE

WISCONSIN OIL BURNER CO.

2720 EMIL ST.

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MADISON 5, WISCONSIN

EMPIRE TURBINES FOR POSITIVE VENTILATION

*The Largest Selling
Turbine Ventilator
In The New York Area
For Over A Decade*



SOLD THRU LEADING WHOLESALERS
SEE YOUR JOBBER

"AS IT ROTATES - IT VENTILATES"

EMPIRE VENTILATION EQUIPMENT CO.

35-39 VERNON BLVD
Long Island City 6, N. Y.

new literature

(Continued)

and slab foundation installations. Included are illustrations of the company's universal connector for any conventional $3\frac{1}{4} \times 10$ in. standard fitting and the standard connector for either 4 or 5 in. round duct connections. Three lengths of the air baseboard and the "Lok-Matic" shutter are also illustrated and described, with drawings to show recessed and non-recessed installation.

Sheet Metal Forming

SIXTEEN PAGE brake manual illustrates how a "Di-Acro" brake can be converted into a bar folder, tab former, radius former, open end brake, standard brake or box and pan brake by changing the top forming bar—O'Neil-Irwin Mfg. Co., 501 Eighth Ave., Lake City, Minn. Entitled *Handy Guide to Aid in Selecting and Operating Di-Acro Brakes*, the manual contains more than 35 photos and diagrams showing ways in which 10 models of brakes can be set up for production or experimental forming jobs.

Cooling Towers

SIX MODELS of "Flow-Cold" cooling towers in capacities ranging from 2 to 15 tons are described and illustrated in Catalog 403 (eight pages)—Acme Industries, Inc., Mechanic & Ganson Sts., Jackson, Mich. Cut-

away views show blower and cooling pack designed for quiet operation and maximum heat transfer from condenser water to air. A selection procedure is given, together with a typical selection example.

Fans and Ventilators

BULLETIN No. 103-A covers fans, fan guards and power roof ventilators—International Engineering, Inc., 1145 Bolander, Dayton 1, O. Fans illustrated and described include axial, high pressure, extended shaft, duct and spray booth and stack and duct booster types. Also described are exhaust types for commercial and industrial buildings. A section on ventilation gives suggestions for installing fans in restaurants, stores and theaters and presents information on the proper ventilation of basements and multi-story buildings.

Gas and Oil Heating Equipment

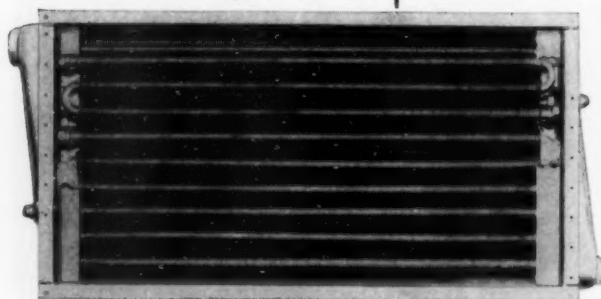
CATALOG No. 854 covers a line of oil and gas winter air conditioners—Thermo-Products, Inc., North Judson, Ind. Simplified furnace selection charts are featured for both oil and gas winter air conditioners. Also included is information on the company's oil and gas fired floor furnaces.

Design for Welding

A REPRINT of a series of three articles, *Practical Design for Welding*, presents principles for the practical

We Make

Extended-Surface



Aerofin is sold only by manufacturers of fan system apparatus. List on request.

HEAT EXCHANGERS
Exclusively!

The pioneer in the field, Aerofin has concentrated on one thing, and *one thing only*—highly efficient, easily installed, easily maintained extended-surface heat exchangers. Aerofin's design, research, engineering and production experience and facilities are unequalled anywhere.

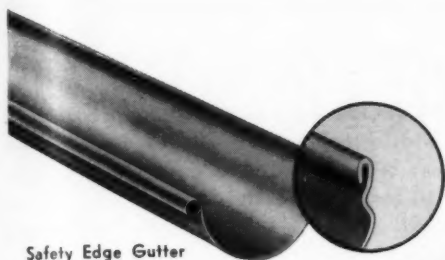
**For High Efficiency, Easy Installation,
Low Maintenance and Servicing Costs . . .**

ASK THE AEROFIN MAN

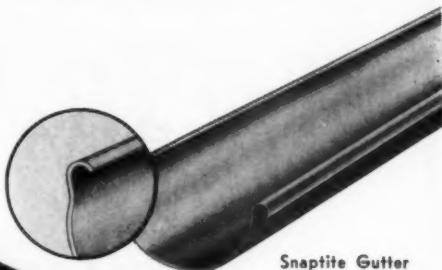
AEROFIN CORPORATION

101 Greenway Avenue
Syracuse 1, N. Y.

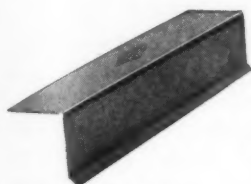
**FOR THE
FINEST**



Safety Edge Gutter



Snaptite Gutter



Standard Drip Edge



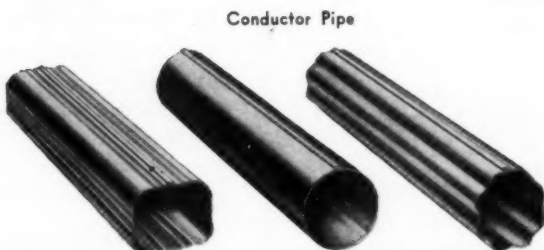
Style "A" Rake Edge

**Benj. P. Obdyke,
Inc.
447 N. 8th St.
Philadelphia, Pa.**

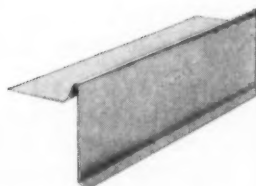
*Available Only
Through Selected
Distributors*



Style "D" Eaves Drip

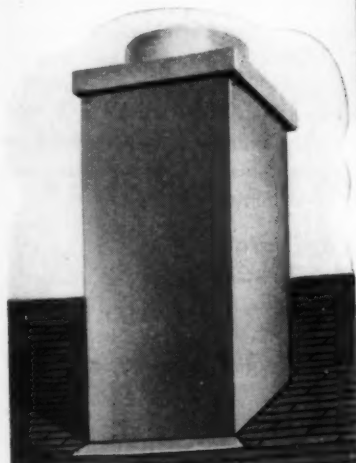
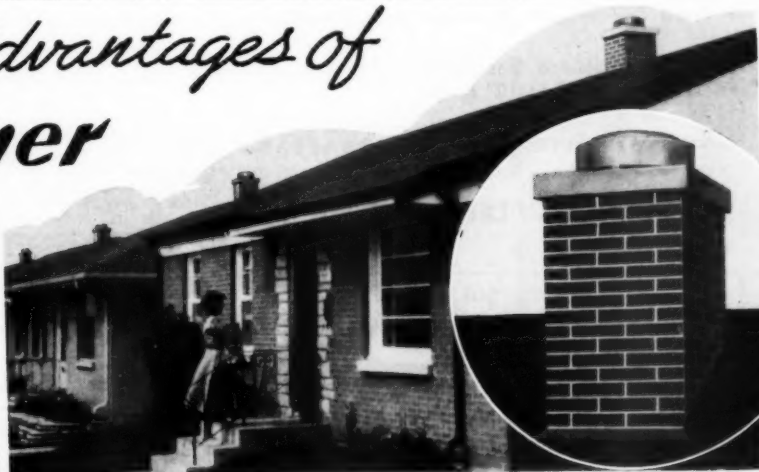


Conductor Pipe



Gravel Stop

All the Advantages of
Vitroliner
with a
BIG PLUS



Vitroliner Chimneys are now available in a brick design with a choice of colors. RED or BUFF, and in a solid neutral flat GREY.

These new features do not in any way change Vitroliner's basic design, quality of construction or tailor-made features.

The brick design is applied at the factory by a special process and looks like real brick. The color finish protects the metal housing.

The standard chimneys are furnished with a neutral grey rust proofing finish on the Housing. This grey housing with the grey porcelain top (formerly green) gives the entire outdoor portion of the chimney a beautiful, striking appearance and blends with all roof colors. If desired, the housing can be painted any other color on the job.

Write today for literature on this fast-selling modern prefab chimney

CONDENSATION ENGINEERING CORPORATION
3511 W. POTOMAC AVE., CHICAGO 51, ILL.



EXCELSIOR

Manufacturer of

- ★ Galvanized Snaplock Pipe, Elbows, and Angles
- ★ Gravity and Forced Air Ducts and Fittings for Every Type of Warm Air and Air Conditioning Distribution System.
- ★ Stainless Steel Chimney Liners for Gas Heat Installations
- ★ Blued and Walnut Stovepipe and Elbows
- ★ A.G.A. Approved Gas Diverters (Horizontal and Vertical 3" to 10" Inc.)
- ★ Sheet Metal Specialties

THE COMPLETE LINE

BOOTH S-65

International Heating and Ventilating Exposition
Philadelphia, Pa.
January 24-28, 1955

Write for Current Catalog 9 B for Details and Prices on Complete Line

THE EXCELSIOR STEEL FURNACE COMPANY

118 S. Clinton St., Franklin 2-8120, Chicago 6, Ill.



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879 Hersey Ave., St. Paul 4, Minn.
Telephone: NEster 7255

EXCELSIOR HEATING SUPPLY DIV.
The Excelsior Steel Furnace Company
2 East 3rd Street, Kansas City 5, Mo.
Telephone: VICTor 3715

BREX DIV.
The Excelsior Steel Furnace Company
One Industrial Rd., Wood Ridge, N. J.
Telephone: WE 9-2020

new literature

(Continued)

designer to use in designing welded steel machine parts and machinery—The Lincoln Electric Co., 22801 St. Clair Ave., Cleveland 17, O. The information covers factors which determine costs; it also describes how a weld may be calculated to meet stipulated load requirements, how to eliminate guesswork from design computations, how to use steel to best advantage and how to control distortion.

Sheet Metal Reference Tables

CALENDAR for 1955 features a set of reference tables listing physical properties of metals, sizes of drills to be used for corresponding U. S. standard taps, weights of sheet zinc, weights and measures, and rules for mathematical calculations—David Levow, 308 W. 20th St., New York 11. Send requests on company letterheads.

Air Conditioning Units

AIR CONDITIONING CATALOG No. 7554 (32 pages) presents data on fans, heating and cooling coils, filters and mixing boxes—Young Radiator Co., 709 S. Marquette St., Racine, Wis. Included are typical selection examples which simplify selection and specification of air conditioning units.

Sheet Steel Separator

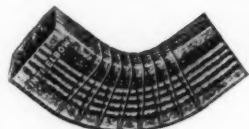
ILLUSTRATED LEAFLET describes "Nutmeg" sheet steel separator, a permanent magnetic self-contained device which automatically separates stacked steel sheets or strips. ABA Tool & Die Co., Inc., 1395 Tolland Turnpike, Manchester, Conn. The leaflet describes the separator's principle of inducing a magnetic field in stacked sheets and discusses the two standard models, the 61½ in. size for heavy duty and the 10 in. size for extra heavy applications.

Sheet Metal, Heating Aids

CATALOG describes products for the sheet metal, air conditioning, heating and ventilating fields, including "Vane-Rail" for making single or hollow air turning vanes for square elbows; pre-assembled "Metal-Fab" for making flexible duct connectors; and a blade kit for assembling multi-blade dampers—Duro-Dyne Corp., 800 Third Ave., New Hyde Park, N. Y. Also available is a four page data sheet covering damper regulators for controlling small dampers in warm and cold air ducts, air conditioning systems, etc.

Power Roof Ventilators

CATALOG 55 (four pages) describes and illustrates power roof ventilators—Uno Ventilator Co., 1236 Eastern Ave., Malden, Mass. Features include low, streamlined silhouette; aluminum construction; and heavy duty motors and blades. Dimensions and performance ratings are given for "B", "F" and "V" series.



CONDUCTOR ELBOWS AND SHOES

- ALL SIZES
- ALL ANGLES
- ALL GAUGES
- ALL METALS

"Tapered to Fit"

"Galvanized after Formed"

THE CINCINNATI ELBOW CO.

4730 Madison Rd.

Cincinnati 27, Ohio

SEE YOUR JOBBER

While You're at the HEATING & VENTILATING SHOW IN PHILADELPHIA

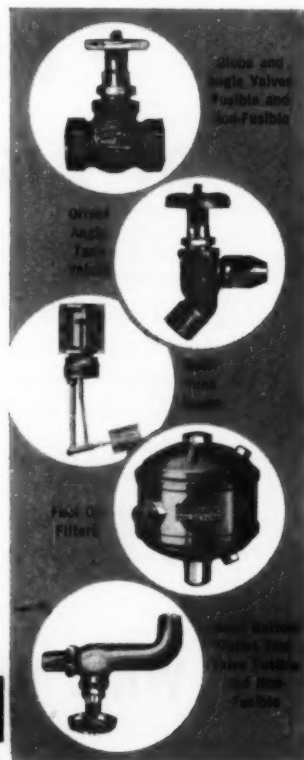
stop in and see us at
BOOTH NO. S-16
Where we will be happy to show you

Firomatic

- the complete line of
- FUSIBLE *and* NON-FUSIBLE VALVES
 - FUEL OIL FILTERS
 - SAFETY DEVICES

THE **MORSE SMITH MORSE** CO.

165 Dexter Avenue • Watertown, Mass.



we hear that...

► **CARRIER CORP.** and **Affiliated Gas Equipment, Inc.** have agreed to merge. Cloud Wampler, president of Carrier, said present plans are that the two major operating divisions of the Affiliated company, known as Bryant and West Coast, will become operating divisions of Carrier Corp. Lyle C. Harvey, president and general manager of Affiliated, will become senior vice president and a director of Carrier upon completion of the merger.

► **THE VAN-PACKER CORP.** has moved its home office into recently completed quarters at Bettendorf, Iowa. The new building accommodates 11 private offices, a conference room and office space for approximately 20 persons.

► **THE AIRTEMP DIV., Chrysler Corp.,** has developed a technical display featuring equipment used for analyzing air conditioning unit starting characteristics. The new testing display shows how inrush current, voltage drop on start, and starting transient duration can be recorded simultaneously when starting a typical air conditioner. With these three measurements, starting characteristics can be analyzed to evaluate the effects of: 1) high line impedance, 2) high or low line

voltage, 3) various current limiter devices, 4) step-starting methods, and 5) different suction and discharge pressure combinations.



EXAMINING ONE of the new gas furnaces bearing the "Airline" trademark are R. P. Wolchinska, factory manager, (left) and W. C. Walter, sales manager

► **THE INGERSOLL CONDITIONED AIR DIV., Borg-Warner Corp.,** located at Kalamazoo, Mich., is now producing and marketing all heating and air conditioning equipment previously sold through separate divisions of the company. The "Norge" line will continue to be manufactured and marketed under that

FIRST

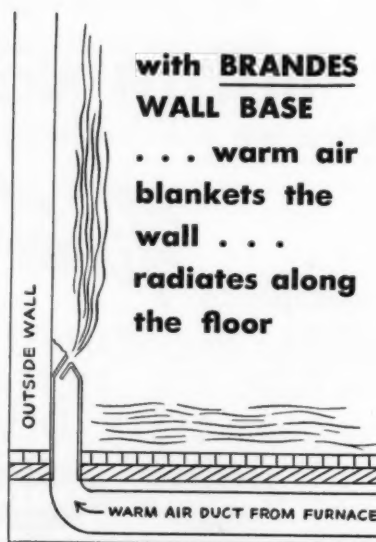
IN ALL WAYS!

Yes Sir, Brandes is the FIRST buy in wall base heating! Unlike others, we're through experimenting. Our product is time-tested, easy to install and low in cost. Write the Brandes Company, 2046 Winnebago Street, Madison 4, Wis. You'll be happy you did!

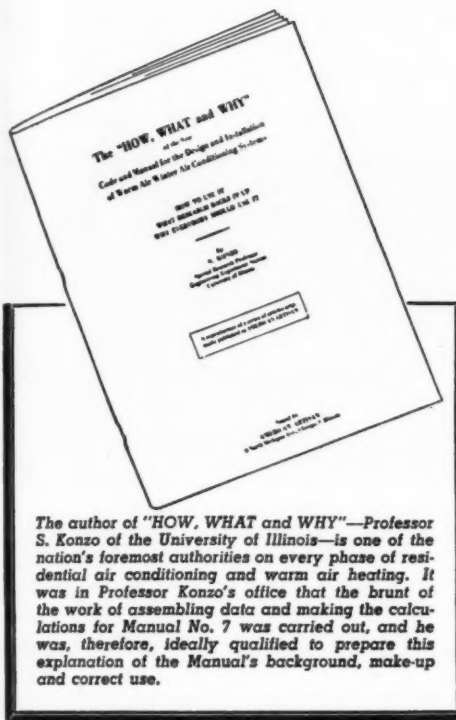
BRANDES

PATENTED

WALL BASE HEATING



An Exhaustive and Clear Explanation of Manual No. 7 That Shows You—



The author of "HOW, WHAT and WHY"—Professor S. Konzo of the University of Illinois—is one of the nation's foremost authorities on every phase of residential air conditioning and warm air heating. It was in Professor Konzo's office that the brunt of the work of assembling data and making the calculations for Manual No. 7 was carried out, and he was, therefore, ideally qualified to prepare this explanation of the Manual's background, make-up and correct use.

Table of Contents

- The New Manual Simplifies Engineering
- How to Figure Heat Losses
- Furnace Selection and Rating
- Blower Selection and Blower Ratings
- Successful Blower Operation
- Registers—Locations, Types, Sizes
- Procedure for Making Plant Layouts
- Equivalent Length of Fittings
- Equivalent Length of Registers
- Sizing the Branch Ducts
- How Tables 8 and 9 Were Established
- Sizing Return Air Ducts
- Trunk Duct and Bonnet Construction
- Sizing of Trunk Ducts
- How to Adjust and Balance a Warm Air Winter Air Conditioning System
- Reference List
- Cross Index

- HOW to Use It Correctly
- WHAT Experience Is Behind It
- WHY Every Dealer Should Use It

"The HOW, WHAT and WHY of the

Code and Manual for the Design and Installation of Warm Air Winter Air Conditioning Systems"

by S. KONZO

Special Research Professor—Engineering Experiment Station, University of Illinois

75 Pages — 8½" x 11" — \$1.00

Users of Manual No. 7 will find this "HOW, WHAT and WHY" booklet invaluable toward acquiring a clearer understanding of the Manual and properly applying it in the planning and installation of warm air winter air conditioning systems. Published originally as a series of articles in the magazine AMERICAN ARTISAN, this clear and comprehensive analysis has proved so helpful to dealers everywhere that now, in response to a wide demand, it has been reproduced in full in this new 75-page booklet "HOW, WHAT and WHY."

Professor Konzo begins "HOW, WHAT and WHY" by telling why a standard designing procedure for warm air winter air conditioning systems was needed by the industry. He reveals how the country's leading manufacturers of warm air heating equipment got together to work out such a method . . . how nearly 200 of the industry's key engineers held scores of meetings over a long period to coordinate data and experience in working out the dependable, simplified design and installation procedure which Manual No. 7 now offers.

Following this introduction, "HOW, WHAT and WHY" goes into a detailed explanation of the designing procedure itself, section by section. It shows the research and experience behind every rule, recommendation, and table the Manual contains. It tells why such factors as temperature drop in ducts, c.f.m. air delivery, air changes per hour, and various other factors which were once considered vital in the planning of forced air heating systems no longer need concern the designer. It provides much interesting supplementary information and comment which helps make each step in the suggested procedure easy to follow and assures the user of the Manual's complete soundness.

An especially useful feature of this explanatory booklet is a Cross Index which permits finding quickly full information about any item in the Manual which is not wholly clear. All in all, this "HOW, WHAT and WHY" booklet will not only assist owners of the Manual to use it to the fullest possible extent, but it will, in the bargain, add materially to their knowledge of every phase of winter air conditioning.

ORDER BLANK

AMERICAN ARTISAN
6 No. Michigan Ave., Chicago 2, Ill.

Attached is my remittance of \$1.00
for which please send me one copy
of "HOW, WHAT and WHY."

Individual _____
Firm _____
Street Address _____
City and State _____

IT'S

Beckett

Pre-Fabricated
DUCT AND FITTINGS
for EVERY HEATING INSTALLATION
EVERY AIR CONDITIONING PURPOSE

- ✓ Saves Hours
- ✓ Saves Labor
- ✓ Saves Money

Available in both
Galvanized Steel and Aluminum

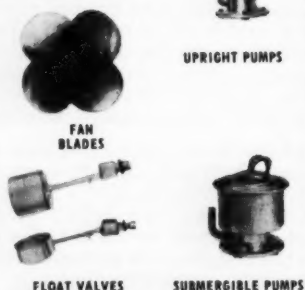
You take all the guesswork out of buying when you specify Beckett Pre-fabricated Duct and Fittings. Pre-fabricated Duct and Fittings by Beckett means precision fit for every assembly... less inventory headaches because you order for the job... lower installation labor costs by speedier assembly... versatile installations because there's a Beckett fitting for every type requirement.

For the most complete line of precision-made Duct and Fittings get all the facts... write for our new complete catalog.



COOLING EQUIPMENT

Beckett Recirculating Pumps, Float Valves, Fan Blades and Cooling Accessories have long proved their merit under every test. Another reason why Beckett products are acclaimed quality leaders in the Heating and Air Conditioning industry. Write for our new complete Cooling Equipment Catalog.



Thomas Beckett & Co., Inc.
DALLAS, TEXAS

HOME OFFICE: 2521 Willowbrook Rd.,
Dallas, Texas

BRANCH OFFICE: 7543 Santa Monica Blvd.,
Hollywood, Calif.

we hear that

(Continued)

name, and a complete line will be introduced in January which will be known as the "Airline." R. B. Crean is vice president and assistant general manager of the division and Fred S. Gombert is manager of the Kalamazoo plant.



ONE OF THE ATTENDANTS at Clayton & Lambert Mfg. Co.'s booth at the Air Conditioning Exposition in Philadelphia will be "Rog Lamneck," a mechanical man constructed from air distribution pipe and fittings

► CLAYTON & LAMBERT MFG. CO. has developed a novel way of displaying its air distribution pipe and fittings. The company built a 12 ft, 4 in. mechanical man entirely out of "Lamneck" pipe and fittings to show the design and workmanship of its products, and will introduce him at the Air Conditioning Exposition in Philadelphia. A 6 ft replica of the figure will be available to wholesalers for display purposes.

► ARMCO STEEL CORP. is again operating the Sixth Street blast furnace at its Ashland, Ky. works. With the re-lighting of this furnace, all seven of the company's blast furnaces will be at work producing pig iron.

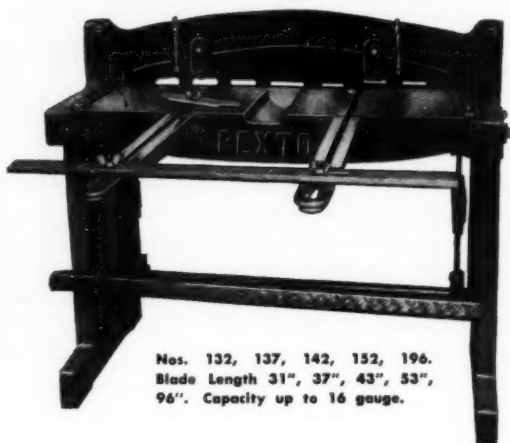
Dr. Alexander L. Feild, associate director of research for Armco, was recently named Sauveur Medalist for 1954. The Sauveur Medal, established in 1934 by the American Society for Metals, recognizes achievements which have made a marked contribution to the basic knowledge of metals. Presentation of the award was made at the annual meeting of the society.

► STANDARD FURNACE SUPPLY CO., LTD. recently moved into its new factory and office building at 714 S. 72nd St., Omaha.

► J. A. SCHAEFER has been elected executive vice president of Dreis & Krump Mfg. Co. Mr. Schaefer has been associated with the company in various capacities, most recently serving as sales manager.

PEXTO... Best Buy

in SQUARING SHEARS



Nos. 132, 137, 142, 152, 196.
Blade Length 31", 37", 43", 53",
96". Capacity up to 16 gauge.

Designed* for easy accurate cutting.

Available in sizes from 30" to 96".

Furnished complete with Front Gauge, Bevel Gauge, Graduated adjustable side Gauge and the famous PEXTO Rack and Pinion graduated precision Back Gauge.

*Design Pat. DES 157,611.

THE PECK, STOW & WILCOX CO.

— since 1785 — Southington, Connecticut, U.S.A.

S PX 52 A

Elgo Ventilating Specialties

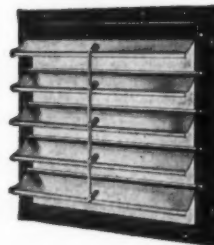
FAMOUS AUTOMATIC SHUTTER

Unusually sensitive to air currents, causing the louvers to open instantly when the fan is turned on—and snap shut when the fan is turned off. The aluminum louvers are weather-stripped. The best fitting shutter on the market.

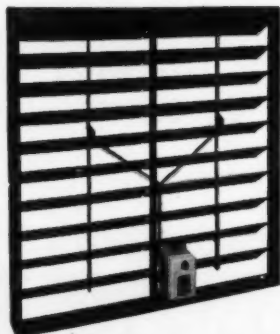
Louver blades have special felt silencing pads. Equipped with improved shoulder rivet.

Sizes from 12" to 72" square — also rectangular.

Elgo Shutters Are Distributed Through Fan and Air Conditioning Equipment Manufacturers



"ELGO" TYPE
AUTOMATIC SHUTTER
Front View (Open)
DETROIT 8, MICH.



All-Steel Motorized Shutter

Used for exhaust ventilation in industrial, commercial and residential buildings. Automatically controlled by fan switch. Positive closing. Storm-proof. All-steel construction.

Elgo Shutter & Manufacturing Co.
2738 W. WARREN

Elgo Shutter & Mfg. Co.
2738 W. Warren
Detroit 8, Michigan

Free
CATALOG

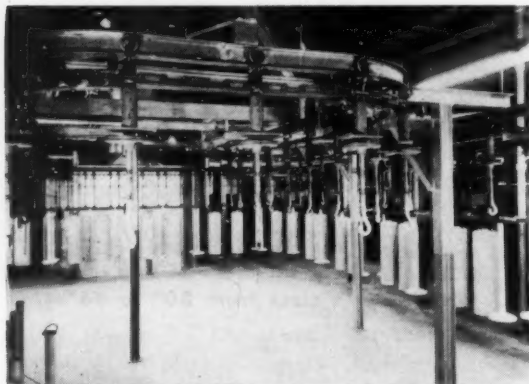
Please send catalog showing the items checked below:

Automatic Shutters Ceiling Dampers
Stationary Shutters Motorized Ceiling Shutters
Hand Operated Shutters Motorized Shutters

Name
Address
City State

we hear that

(Continued)



CONVEYOR line at Rheem Mfg. Co.'s Chicago plant carries tank, head, flue and bottom assemblies to the firing furnace where the coating on the assemblies is converted into glass

► RHEEM MFG. CO.'s Chicago plant recently installed equipment and facilities at a cost of approximately \$1 million for the manufacture of glass-lined water heaters. The glass lining featured in the heaters is produced by spraying shell, head, flue and bottom assemblies with a liquid which becomes glass during the firing process.

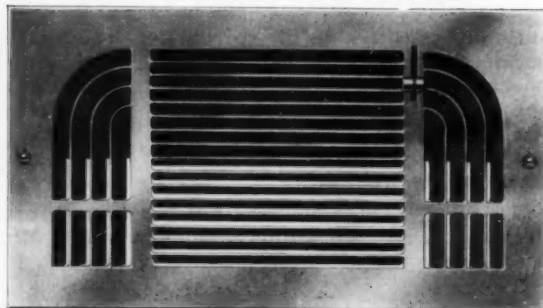
► IRVING G. BOHRMAN has been elected president of Perfex Corp. Mr. Bohrman fills the vacancy left by the resignation of Carroll E. Lewis who has been president of the company since 1946. Ernest H. Panthofer has been named vice president.

► THE BERGER FURNACE CO. is offering its dealers complete "merchandising packages" designed to enable them to secure direct leads. Included are one-minute television films, newspaper mats, direct mail pieces and counter cards. In addition, the retail salesman is given information on how to follow up leads and create sales. Products merchandised in this program are gas furnaces and "Perim-A-Base" warm air baseboard diffuser.

► MORE THAN 300 General Electric Home Heating and Cooling Department distributors and personnel met recently with department management to launch sales plans and programs for 1955. Two conference meetings were held at Colorado Springs and seven at Princeton, N. J., at which S. J. Levine, the department's general manager, and his marketing staff discussed the 1955 product line, sales service and application training programs, special finance plans, and advertising and sales promotion activities. These meetings were conducted as small discussion groups with less than 25 distributors at each session.

Give your heating installations "eye appeal" with the new RAINBOW wall diffuser

By popular demand we
have developed this
new design for use
on either high or low
velocity perimeter
installations



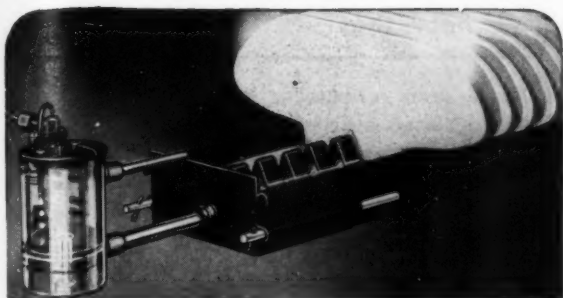
AVAILABLE FOR IMMEDIATE DELIVERY AT NEW LOW LIST PRICE
Order with or without valve for wall, baseboard or out-of-wall installations.

SIZES—10, 12, 14 x 4"
10, 12, 14 x 6"

Ask your jobber for complete details and prices or write direct to:

THE A & A

REGISTER COMPANY
8327 CLINTON RD. CLEVELAND 9, OHIO



MONMOUTH HUMIDIFIERS

*The Extra Sale
that will bring YOU
Better Profits in 1955*

You will be doing a favor to every furnace user you serve — every new furnace buyer — and to yourself — if you resolve now to push the sale of Monmouth Humidifiers in 1955.

Simply point out to home owners that dry air is harmful to health — that it dries out furniture, plaster and woodwork — causes costly repairs — and it isn't difficult to make a Monmouth sale. Nor is it hard to install — takes little time — yet pays you big profits.

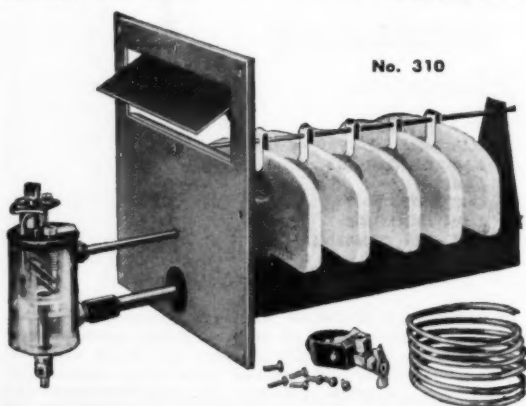
Monmouth Humidifiers come to you packaged — in 16 sizes that take care of furnaces up to 420,000 B.T.U. — in two styles with time-tested Flotrol or Microfeed control — and in a special Humidity Control Unit for use with radiation heat. All employ the exclusive Monite plate for fast vapor diffusion.

Resolve now to let Monmouth help you make more money in 1955. Write today for descriptive bulletin and size, price and discount sheet.

THE CLEVELAND HUMIDIFIER CO.

7802 Wade Park Avenue

Cleveland 3, Ohio



MONMOUTH HUMIDIFIERS

Now! with *new*
LATEX-COATED FILTERS
exclusive with **ALTON** coolers!



ALTON
"airwasher type" **EVAPORATIVE COOLER**

ODORLESS, FIREPROOF filters, and many other superior features give you new sales opportunities! ALTON Coolers are especially designed for those hard-to-cool installations such as retail stores, markets, taverns, factories, laundries, theaters, churches, etc.

And, ALTON'S superior construction and superior features are low-cost; designed for the budget-minded customer!

CHECK THESE SUPERIOR FEATURES!

NEW Latex-Coated Filters — odorless, fire-proof, longer lasting filter-mats, guarantee continued full air delivery when coolers with other mats fail. Two sets of filter-mats are sure protection against moisture "pull-through". And, new construction prevents filter-sag!

Aquasprae Unit — provides thorough wetting of all filtermat surface!

All-Galvanized Housing — for longer life!

Squirrel-Cage Blower — gives maximum cooling power with uniform flow of fresh, cool air in required capacities.

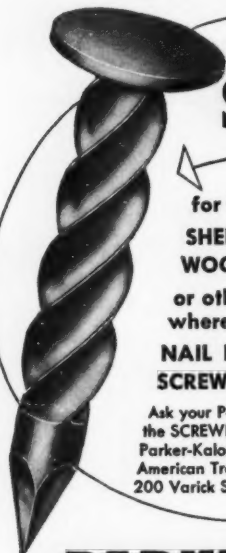
Your customers will get more years of low-cost, trouble-free cooling with ALTON Evaporative Coolers!

GET THE FACTS TODAY!

ALTON MANUFACTURING COMPANY
1112 Ross Ave., Dallas, Texas

NAME
BUSINESS NAME
ADDRESS
CITY STATE

In to stay when you use



Hardened Screwnails

for fastening
SHEET METAL to WOOD
WOOD to WOOD
or other fastenings
where you need
NAIL DRIVING SPEED with
SCREW HOLDING POWER

Ask your P-K Distributor for samples and
the SCREWNAIL folder, or write:
Parker-Kalon Division, General
American Transportation Corporation,
200 Varick St., New York 14.

PARKER-KALON®
FASTENERS

STOP fuel waste in 2 to 5 minutes with "CLEAN RIGHT"

"CLEAN RIGHT" gives you complete soot removal. "CLEAN RIGHT" gets to ALL the hard-to-reach flue passages in heating plants so often missed when cleaned mechanically.

A simple dusting of "CLEAN RIGHT" into the heater cleans the ENTIRE HEATING PLANT within 2 to 5 minutes. "CLEAN RIGHT" reduces the ignition temperature of soot for complete removal. "CLEAN RIGHT" removes soot without dirt or mess, eliminating the need for special equipment.

"CLEAN RIGHT" is available in 40, 50 and 70 lb. drums and smaller packages for retail sales. Always look for the broom on the package.

NON-CORROSIVE
NON-EXPLOSIVE

Additional information is available.

MILLER PRODUCT CO.
3046 CEDAR ROAD
LANSING, MICHIGAN



we hear that

(Continued)

Headquarters personnel at the meetings, in addition to Mr. Levine, included R. C. Robertson, the department's manager of marketing; W. L. Sneltsjes, manager of sales planning, and L. H. Hirschbach, manager of builder sales. Regional managers of the six GE national marketing areas and sales representatives also attended.

► AMERICAN SHEET METAL WORKS & Supply, Inc. has published an eight page booklet entitled *The Perfect Home Heating System* which outlines the advantages of continuous air circulation. The booklet discusses such subjects as power cost, register location and sizes, sensitivity in controls, input, correct setting for blower speed, setting of the limit control, and balancing the system.

► PERFECTION STOVE CO. plans to merchandise its air conditioners on a five year cost amortization plan. The company also plans to lease air conditioners on a five year basis or longer. On the extended sales and rental plans, complete cost of wiring made necessary by installation of the air conditioning equipment will be financed by Perfection. The company will also provide five years of free service and parts to those taking advantage of the extended programs.



*I give my customers
the **BEST!***

The
**WIGWAM-
THERMCAP**

Eliminates

- DOWN DRAFT
- SLUGGISH DRAFT
- DAMAGING ACIDS
- CARBON
- CREOSOTE
- RAIN MOISTURE
- FUEL GAS CONDENSATION



The WIGWAM-THERMCAP improves combustion — thus saves fuel. Looks good — is good. Keeps entire chimney dry. Has no moving parts to wear out. Saves costly repairs. Poor draft is dangerous; good draft means economy. The patented principle of WIGWAM-THERMCAP creates a draft-pull at the chimney top. ADAPTABLE TO ALL CHIMNEYS. Special WIGWAM-THERMCAP representatives' contract available to qualifying dealers. Write for complete information, literature & instruction sheet.

BOSTON MACHINE WORKS COMPANY
Oil Heating Supplies Division, Manufacturers, Lynn, Mass.

we hear that

(Continued)

▶ **JOHN D. SMALL** has been elected president of Quiet Heat Mfg. Corp., subsidiary of Emerson Radio and Phonograph Corp. Bruno Sachs has been elected vice president and assistant to the president; Louis G. Pacent, Jr., vice president in charge of manufacturing; and Paul Komroff, vice president in charge of engineering.

▶ **HAROLD W. SWEATT**, chairman of the board of Minneapolis-Honeywell Regulator Co., has been appointed special consultant to the Foreign Operations Administration to assist with FOA's work in Europe.

▶ **NEW ADVERTISING** mat booklets showing new mats for furnaces and chimneys are now being offered to dealers by the Majestic Co., Inc.

▶ **A RECORD ORDER** of 1000 oil fired furnaces for installation in a housing project near Seattle has been placed with General Electric Co. by the builders. According to Carl Bergman, general manager of Central Service Sales, Inc., the dealer installing the equipment, this is the largest single sale of its kind ever made in the Seattle area. The project has houses of two, three and four bedrooms, ranging in price from \$8500 to \$16,450. Space heaters were formerly used in

TIME SAVERS for the modern SHEET METAL OPERATOR . . .

- ★ CB Manual Metal Shrinker-Stretcher
- ★ CB Lightning Hole Punches-1"- $3\frac{1}{2}$ "
- ★ METALMITRE Notching tools and dies
- ★ REGELE Flexible Steel Straight Edges
- ★ BENNETT Air-operated Vacuum Cleaners
- ★ ONE-HANDER Ratchet Pipe & Nut Wrenches
- ★ 3-I-Q Tap and Drill Stands and Guides
- ★ The E-Z SAW for fast metal cutting
- ★ The ROYAL CLIPPER Metal Cutter
- ★ SPRITZIT COLOR-SPRA Aerosol products

M. M. A. INC.
LANCASTER, PA.

Make Stronger Fastenings this easy way



P-K
TRADE MARK
REG. U.S. PAT. OFF.

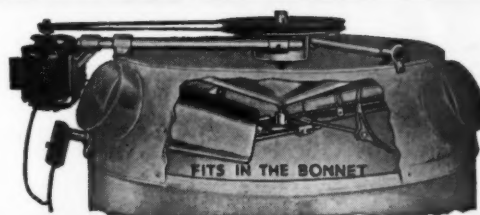
Hardened Masonry Nails

DRIVE EASILY into mortar, cinder blocks, and other soft masonry without pilot holes . . . into pre-drilled holes in harder materials. **HARDNESS and TOUGHNESS** perfectly balanced . . . they drive in straight to stay tight, even under shock or vibration.

COST YOU LESS and are much simpler to use than plugs, expansion bolts, other devices. Samples free . . . try them. Ask your P-K Distributor, or write: Parker-Kalon Division, General American Transportation Corporation, 200 Varick St., New York 14.

PARKER-KALON®
FASTENERS

Convert Gravity Furnaces With A CIRCULATAIRE Bonnet Blower



CIRCULATAIRE ELIMINATES COLD ROOMS, BALANCES HEAT DISTRIBUTION, SAVES FUEL

CIRCULATAIRE solves the problem of "hard to heat" rooms, boosts warm air quickly through all the heating pipes. CIRCULATAIRE is easily and quickly installed without removing the bonnet. Packaged unit includes motor and fan control. No new sheet metal work required, no changing of cold or warm air pipes, no baffles to be built. The CIRCULATAIRE is rigid, quiet and efficient in operation.

NOW READY—New CIRCULATAIRE Sales Aids add effectiveness to selling interview, conserves valuable selling time and increases sales.

A COMPLETELY PACKAGED UNIT
Nothing for the dealer to furnish except limited amount of labor.



GET THE FACTS TODAY! WRITE...

CIRCULATAIRE DIVISION OF CORLETT-TURNER CO.
1007 S. KOSTNER AVE., CHICAGO 74.

FLANGES THE DUCT with Amazing Speed!

Less than 5 seconds on short
and lighter pieces . . .
Slightly longer on bulkier pieces

MAKES PERFECT DRIVE-CLEATS TOO!

The ONLY tool that does both.
A complete drive cleating tool . . .
no set-up time . . . no adjustments.
Handy to take out to the job when
not needed in the shop. Turns idle
time into production time. Flanges
any square duct up to 20 gauge.
Quickly pays for itself in time,
material and labor savings.



No. 12 Smith's Cleat Bender

(12" wide) . . \$46.20*

No. 18 Smith's Cleat Bender

(18" wide) . . \$72.60*

*F.O.B. Waukegan, Illinois
Prices subject to change
without notice

PERFECT
DRIVE CLEATS
fit the duct without
the use of a screwdriver.
TREMENDOUS SAVINGS
in erection time and labor.

R. E. SMITH

1124 Elizabeth Avenue • Waukegan, Illinois



BUILT For BETTER CLEANING

the GRAND RAPIDS deluxe FURNACE CLEANER

Model of the Doyle Vac-It

Built by men who understand the problems of furnace cleaning, the Grand Rapids Furnace Cleaner has been developed into a highly serviceable unit meeting all the requirements for faster, easier and more profitable cleaning:

DURABLE—COMPACT CONSTRUCTION • LIGHTWEIGHT
ALUMINUM HEAD ASSEMBLY • HIGH POWERED MOTOR
• 8" DIAMETER ROTARY FAN • LARGE CAPACITY
HEAVY DUTY STEEL TANK • FLEXIBLE RUBBER CLEAN-
ING HOSE WITH 2" INSIDE DIAMETER • EFFICIENT
OUTSIDE FILTER BAG • FREE ROLLING SWIVEL-TYPE
CASTER WHEELS • ENGINEERED FURNACE CLEANING
ATTACHMENTS.

Write today for complete information

Doyle VACUUM CLEANER CO.

227 STEVENS ST., S.W. GRAND RAPIDS 7, MICH.

we hear that

(Continued)

the smaller homes but the project's management is now switching to oil fired furnaces for the entire development. Furnaces are located in a special utility room accessible from the outside, and use a perimeter heating system. The entire crawl space area has been sealed and is used as a return plenum.



W. C. COLEMAN (center) congratulates Kenneth K. Gowdy (left) and Frank A. Dobbe, winners of the 1954 Coleman scholarships

► KENNETH K. GOWDY of Kansas State College and Frank A. Dobbe of Kansas University were 1954 winners of the two scholarships given annually to outstanding senior engineering students by the Coleman Co. The scholarships were established in 1953 by the company to help fill industry's need for more engineering talent by encouraging promising engineering students at the two state schools to complete their educations.

► MORE THAN 137,000 sq ft of aluminum sheet went into the roof of the recently completed three-acre livestock market at West Friendship, Md. The aluminum, produced by Reynolds Metals Co., is 0.024 gage corrugated embossed sheet.

► THE BARRY BLOWER CO. has completed an addition for assembly and shipping operations to its main factory building. The space formerly occupied by the assembly and shipping rooms will now be used for fabricating operations.

► DEALERS bought more than 12,000 room air conditioners in the first 15 days of Mitchell Mfg. Co.'s "Early Bird" promotion, which offers vacation trips to dealers in exchange for pre-season purchases of 1955 air conditioning units. Consumers also may benefit from the "Early Bird" promotion. Each person who purchases a 1955 air conditioner in February will be given a form on which to register his name, address, model and serial number of his unit. The form also contains the line, "I bought my 1955 room air condi-

DIECKMANN
CONDUCTOR
ELBOWS and SHOES

An ANGLE for every obstacle!

PLAIN ROUND
CORRUGATED ROUND
CORRUGATED SQUARE

Made in 28, 26, and 24 gauge steel hot dipped galvanized after formation. Sizes from 1" to 6". Angles from 10 degrees to 90 degrees.

Also in Copper, Aluminum and Stainless Steel.

Catalog available from your jobber.

THE FERDINAND DIECKMANN CO.

ESTABLISHED 1871

CINCINNATI 22, OHIO

P.O. Station 8

ASPIRIN HEADQUARTERS

at the

Heating and Ventilating Exposition

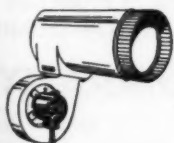
SPACE S-77

We'll have aspirin on hand for convention headaches. We'll have a complete display of the appliance designed to cure draft headaches—the Quickdraft Draft Creator.

ASPIRIN WON'T CURE HEATING HEADACHES—quickdraft WILL!

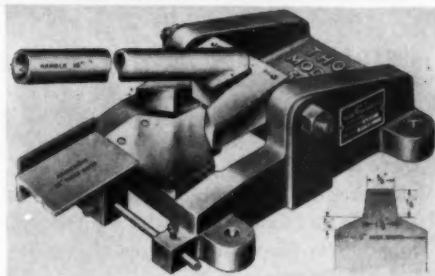
Get all the facts about QUICKDRAFT at the Exposition; or ask your jobber, or write us for name of Quickdraft jobber nearest you.

QUICKDRAFT COMPANY
1150 So. Erie Blvd.
HAMILTON, OHIO



—THOR QUALITY TOOLS —

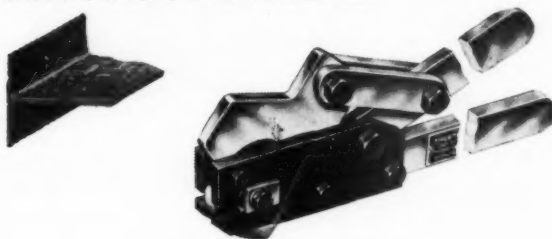
A NEW
DRIVE
CLEAT
NOTCHER



For the air conditioning industry — Shears and notches drive cleats up to 3" in width. Capacity, 20 ga. Furnished with 3' table guide. Long strips of metal can be passed through this die and sheared to length, thus saving an extra operation.

THOR UNIVERSAL CLIP PUNCH

Completes lock in one operation. Saves 50% labor. Used for fastening standing seams, government locks, etc. Capacity, three sheets of 20 ga. metal.



Also: THOR GOVERNMENT LOCK DIES

See your local dealer or write for descriptive literature.

THOR TOOL AND DIE CO.

865 Estabrook St., San Leandro, Calif.

THE RIGHT SHEAR FOR ANY CUTTING JOB

MARSHALLTOWN



ROTARY
THROATLESS
SHEARS

CUTS ALL SHAPES—SIZES

- QUICKER
- EASIER
- FASTER

Here's a shear that's right for every job. Speedy — efficient. Cuts up to 1/4 inch stock — speed to 6 ft. per minute. Excellent for irregular cutting or straight splitting. Available in hand operated or motorized models. Prompt shipment. Send today for special illustrated bulletin.

**MARSHALLTOWN
MANUFACTURING COMPANY**

Marshalltown,

Iowa

we hear that

(Continued)

tioner early because" Entries judged best win a free air conditioner. The promotion is aimed at "the admittedly small number of people who plan to buy a room air conditioner during the first two to three months of the year," according to E. A. Tracey, vice president in charge of the air conditioning division. He said that, through the plan, the company hopes to gain a larger share of the early market; that it does not hope to "convert May and June buyers into January or February buyers."

► **JOHNS-MANVILLE** is now co-sponsoring the half hour Sunday television program, *Meet the Press*. According to H. M. Shackelford, vice president in charge of sales promotion and advertising, 26 stations will carry the program to an estimated audience of four million viewers.

► A **FOUR-COLOR COUNTER** display for "2300" furnace humidifiers is being offered by Viking Air Conditioning Div., The National Radiator Co. A simulated cutaway furnace plenum holds a humidifier and invites inspection of its construction and installation. Drawings on the side of the display show how the humidifier may be installed in round, sloping or straight plenums.



FIREMAN tests the George Evans Corp.'s "Lifelong" filter to determine how much pressure the filter pack can stand

► **THE GEORGE EVANS CORP.** recently asked the Waterloo, Iowa fire department to test the strength of its "Lifelong" filters. In the picture above the filter is shown withstanding a $1\frac{1}{8}$ in. stream of water under 65 lb pressure at a rate of 300 gpm. Reason for the test was to show that the filter can easily withstand the cleaning processes normally encountered.

► A **PREVIEW** of Penn Controls, Inc.'s *Controlorama* — a control show for heating, air conditioning and refrigeration engineers and servicemen — was recently given at South Bend, Ind. Co-sponsoring the show were 13 wholesalers in South Bend, Mishawaka, Elkhart and Goshen. The show will be presented this spring in approximately 40 cities throughout the country.

RID ALL

INCINERATORS
NOTHING BETTER MANUFACTURED

**FURNACE DEALERS MAKE MORE MONEY WITH YOUR OWN EXCLUSIVE LINE
STOP BIDDING AGAINST COMPETITORS WITH THE SAME FURNACE.**

We Can Offer You an Exclusive Line of Oil, Gas and Coal Furnaces with Gas and Fuelless Incinerators.

Write and Let Us Know the Territory You Want

SCHWAB FURNACE CO.

MILWAUKEE 4
WISCONSIN

AND GILTEDGE

FURNACES
THE FINEST NAME IN HEATING SINCE 1876

MORE Rigid... LESS Cost

ONE PIECE
BLOW PIPE ELBOW



• HOODS • BALL JOINTS • FLOOR SWEEPS
• BLAST GATES • STAMPED AND ROLLED ANGLE RINGS

Cheaper and stronger than the ordinary pieced elbow, KIRK & BLUM'S One-Piece Elbows are rolled into a tube, then crimped on an exclusive machine to form a super tight, rigid elbow. These and other blow pipe parts, made in production quantities, are superior, cost less than the ordinary kind. Made in light to heavy gauges, from 3-inch to 14-inch diameter. Write for literature and prices.



Ball Joints
Any Size

THE KIRK & BLUM MANUFACTURING CO.
3180 FORRER AVE. • CINCINNATI 9, OHIO



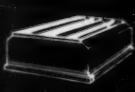
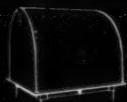


ADAMS Flue Thimble (Cast Iron)

Adams Cast Iron Flue Thimbles
Insure Permanence, Tighter Fit,
Better Draft.

**Sizes 4 to 12 inches
Buy Adams Known Quality**

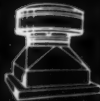
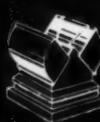
THE ADAMS COMPANY

Bridge Street • Established 1883 • Dubuque, Iowa

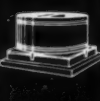

Swartwout Roof Ventilators

for every industrial, commercial and institutional need

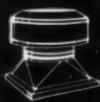

Gravity Ventilators

Airmover Dexter Heat Valve
Gravity Valvent Rotary

Powered Ventilators

Airjector Powered Valvent
Ject-O-Valve Whirlout
Airlift Airlift Junior

Louvers

Airlouver Industrial Louver
Fire Ventilation
Swartwout Fire Valve

Write for Bulletin 349 J

EXPERIENCED VENTILATOR MANUFACTURERS SINCE 1904

18511 Euclid Avenue, Cleveland 12, Ohio

The Swartwout Co.

Roof Ventilators and Ventilating Louvers

POWER PLANT EQUIPMENT • PROCESS INDUSTRY CONTROLS

Only- **QUIET AUTOMATIC** *-has...*
OIL BURNER

**3 KINDS OF —
HIGH COMBUSTION
OIL BURNERS . . .**

ANOTHER REASON WHY YOU GET *More*
FOR YOUR MONEY FROM QUIET AUTOMATIC!

1



CATOMIC® HI-COMBUSTION

Oil Burner, equipped with Minneapolis delayed action oil valve and adjustable turbulators. Underwriter's approved.

2



SHELL HEAD TYPES

with flush back plates . . . easy air adjuster. Underwriter's approved.

3



REGULAR TYPE BURNERS

With static disks. (No extra cost) Underwriter's approved.

**Saves up
to
30%
IN FUEL
and...
NO SOOT
or SMOKE**

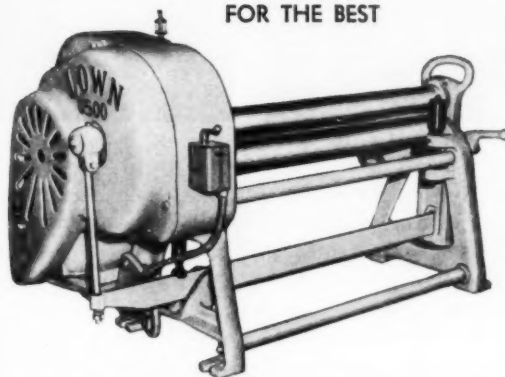
Write for Free Booklet describing our quality line of Oil Heating products! They cost so LITTLE MORE, and save SO MUCH!

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33-35 Bloomfield Avenue
NEWARK 4, N. J.

*Trade Mark Reg.—Patented U. S. and Canada

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FOR THE BEST



SLIP ROLL FORMING & PLATE BENDING MACHINES

Metalworking Shops: Write for free literature on rolling metal; advise ga. & width mild steel, and diameter to be rolled.

SAN ANGELO FOUNDRY & MACHINE COMPANY
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Dealers in Principal Cities

On display Booth S-115
12th H & V Show

Btuh Calculator

BASED ON 80° TEMPERATURE DIFFERENCE

FOR OTHER TEMPERATURE DIFFERENCES MULTIPLY FINAL Btuh FOR SPACE BY ONE OF THE FOLLOWING CORRECTION FACTORS:

35°-44	40°-50	45°-55	50°-60	55°-65	60°-70	65°-75	70°-80
75°-84	80°-90	85°-95	90°-100	95°-105	100°-110	105°-115	110°-120

- 1 SET AREA UNDER ARROW
- 2 READ Btuh LOAD UNDER "B" FACTOR

Btuh Calculator

BASED ON 80° TEMPERATURE DIFFERENCE

FOR OTHER TEMPERATURE DIFFERENCES MULTIPLY FINAL Btuh FOR SPACE BY ONE OF THE FOLLOWING CORRECTION FACTORS:

35°-44	40°-50	45°-55	50°-60	55°-65	60°-70	65°-75	70°-80
75°-84	80°-90	85°-95	90°-100	95°-105	100°-110	105°-115	110°-120

- 1 SET CRACK FEET OF CRACK UNDER ARROW
- 2 READ Btuh UNDER INFILTRATION FACTOR

Btuh Calculator

BASED ON 80° TEMPERATURE DIFFERENCE

FOR OTHER TEMPERATURE DIFFERENCES MULTIPLY FINAL Btuh FOR SPACE BY ONE OF THE FOLLOWING CORRECTION FACTORS:

35°-44	40°-50	45°-55	50°-60	55°-65	60°-70	65°-75	70°-80
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- 1 SET CRACK FEET OF CRACK UNDER ARROW
- 2 READ Btuh UNDER INFILTRATION FACTOR

Morton's NEW Direct Reading Calculators

Operate like slide rules, yet read DIRECT like tables. No interpolating. Of lifetime vinyl plastic, 3-1/4" x 9" size.

Btuh (Crackage Method) Calculator gives correct heat loss for any area under a choice of 28 factors, and crackage Btuh under 15 infiltration factors. \$3.85 postpaid.

Area and Crackage Calculator. \$4.75 postpaid.

BTU (Air Change Method) Calculator. \$3.75 postpaid.

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Order today on 10-day Money-Back Guarantee, or request free circular. Price includes carrying case.

PAUL S. MORTON

601 Bangor Rd., Lawrence, Mich.

appointments . . .



Howard Snyder



R. H. Jacobs

► **HOWARD SNYDER**, for the past three years a heating controls salesman for Minneapolis-Honeywell Regulator Co. in Milwaukee, as manager of the firm's Milwaukee branch office. R. H. Jacobs has been appointed to the newly created position of sales manager of the company's merchandising division. In his new position Mr. Jacobs will be responsible for sales to the home builder market.

► **ROGER H. DOWLING** as assistant vice president—product quality for York Corp. Formerly the company's general service manager, Mr. Dowling will now have overall responsibility for the quality and serviceability of all products marketed by the firm.

► **O. E. COLLINS** as general sales manager of Van-Packer Corp. Mr. Collins joined the firm in 1951 as Chicago district sales manager covering Illinois and Wisconsin. In 1953, he became assistant general sales manager, and served in that capacity until his recent promotion.



O. E. Collins



Charles H. MacFarland

► **CHARLES H. MACFARLAND** as director of research for Eureka Williams Co. Mr. MacFarland has had wide experience in home heating engineering, having served with such firms as the Hoover Co., Westinghouse Electric & Mfg. Co., and United Stove Div., Gar Wood Industries.

► **BENTON J. WILLNER**, formerly assistant general sales manager of Inland Steel Co., as assistant to the sales vice president. Robert M. Buddington, who also

3 NEW Exclusive "Home-Run" FEATURES
PUT EMPIRE WAY AHEAD
in the FURNACE CLEANER League

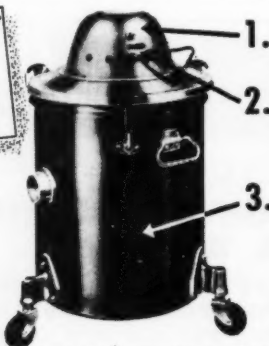
DISTRIBUTORS NOTE
Several choice territories available. Write today for complete information.

SEE US AT BOOTH S-66
INT. Heat & Vent. Show

Manufactured by
EMPIRE CHEMICAL PRODUCTS CO.
10 Longworth Street, Newark 2, N. J.
In Canada—KRESNO-STAMM, 506 Harbour St., Montreal 24

When machine shuts off, baseball bounces and shakes dirt and soot loose from rayon bag.

Rayon Bag, Baseball and Draw String.
\$3.75 extra.



1. New type motor, more powerful, better constructed, gives 70 inches water lift at hose end.

2. Extra electric outlet on top of machine for connecting drop light. No hunting for outlets and dragging lengths of wire across the cellar floor.

3. Amazing new Rayon Bag with "baseball" device. EXCLUSIVE on Empire Furnace Cleaners. Outlasts dozens of paper bags. Keeps machine at top efficiency. Available at extra cost.

NU-VAC
FURNACE CLEANER
Still only \$99.50

Includes . . . One 10 ft. Heavy Duty Hose—One 30" Crevice Tool—One Bag Cage with Filter Bag—One Paper Filter.

PERFORATED METALS FOR EVERY INDUSTRIAL USE

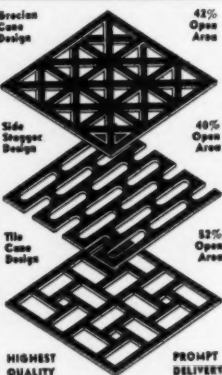
The "Ornamental" light-gauge designs here illustrated are only a few of the many you can choose from in our new Catalog 39 and we are always pleased to quote on original designs or special work of any kind.

For larger unit-openings, using metals up to 1/4" in thickness, we offer a wide variety of equally attractive designs in our Catalog 36 on Diamond Architectural Grilles.

Send us your blueprints. We are equipped to fabricate special sections to any desired extent and welcome opportunities to make money-saving suggestions.

DIAMOND MANUFACTURING CO.
Box 34 WYOMING PENNA.
(Wilkes-Barre Area)

Sales Representatives in all principal cities. Consult Your Classified Telephone Directory.



HIGHEST QUALITY

PROMPT DELIVERY



FREE COLORFUL CATALOG!

Just out . . . packed with photos and valuable information on **OIL-FIRED UNIT HEATERS**

How they work . . . how and where to install . . . how to estimate and how to order.

SEND FOR CATALOG UH-155 NOW!

See us at the Heating & Ventilating Exposition Booth 150 — Commercial Museum, Phila. Jan. 24-28

DELTA HEATING CORPORATION,
TRENTON 8, NEW JERSEY



YOUR DOLLAR GOES FARTHER
... with **RELIABLE GAS PRODUCTS**
TOP QUALITY at LOW COST!



RING BURNERS

Single, Double and Triple

COMPARE

- QUALITY
- EFFICIENCY
- PRICE
- GUARANTEE

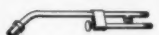
RELIABLE offers "extra value" in a complete and versatile line of the very highest quality gas appliances. This quality is assured by the testing of every appliance thoroughly before it leaves the factory.

WRITE FOR COMPLETE CATALOG:

RELIABLE GAS PRODUCTS COMPANY

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A MORE COMPLETE LINE THAN EVER!



SOLDERING TORCHES



DRILLED PIPE BURNERS



BENCH FURNACES



INDUSTRIAL BUNSEN BURNERS



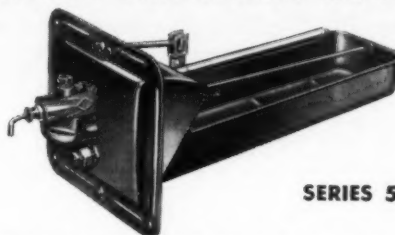
STRAIGHT OR ANGLE HAND TORCHES



MELTING POTS

Vaporite
AUTOMATIC HUMIDIFIER

OFFERS QUICKEST - FASTEST INSTALLATION
ADJUSTABLE TO SLOPING OR STRAIGHT
BONNET FURNACES



SERIES 577

Stainless steel construction. Drip-feed puts just enough water in pan for fastest vaporization. Eliminates scum . . . no stagnant water pan.

Pre-assembly cuts labor time and costs. To install simply cut hole in plenum wall, slip VAPORITE in just as it comes from shipping package.

Get complete information. Write, A-1

Automatic Humidifier Co.
CEDAR FALLS, IOWA

NEW LOW PRICES on COLE-SEWELL DRAFT CONTROLS



MODEL 730

Standard Round
SULLIVAN STABILIZER

Gate control with or without universal sleeves. Open check type. Top or side mounting. Perfectly counterbalanced. Ball bearings. Stock sizes from 14" to 36". Special sizes on order.

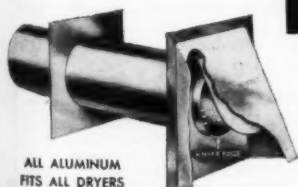
Standard Round
DRAFT KOREKTOR

Low price, positive action gate control designed specially for oil burners and stokers. Exclusive friction-free, knife-edge bearings. Stock sizes 7" to 12". 4" to 6" sizes for stoves and space heaters.



MODEL 909

The Original
LAUND-R-VENT

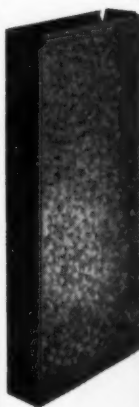


ALL ALUMINUM
FITS ALL DRYERS

For any automatic clothes dryer. Vents moisture, lint, odors, etc., to outside. Easily installed. Friction free. Rust proof. Won't freeze. 3" and 4" sizes. Standard and special kits. SNAP LOCK PIPE in kits.

COLE-SEWELL ENGINEERING CO.
2288 UNIVERSITY AVE. • ST. PAUL 14, MINN.

ALL YOUR NEEDS In DUCTS and FITTINGS



AJAX

- Highest Quality
- Precision Made
- Quick Assembly
- Forced Air or Gravity
- All Systems

Fittings, Pipe and Duct are die cut and formed, fit up tight and fast with AJAX Automatic Snap Lock connections.

AJAX FURNACE FITTING CO.

216-20 E. Front St.
Cincinnati 2, Ohio

For extra profits, use AJAX Pipe and Fittings to save you installation time and labor.

WRITE TODAY
New complete line catalog complete with helpful data.
DIVISION OF
THE CINCINNATI SHEET METAL & ROOFING COMPANY

appointments

(Continued)

has been an assistant general sales manager, has been named general manager of sales, and John G. Mack, Jr. becomes assistant to the general sales manager.

► A. L. REGISTER, formerly in the Chicago office of Connor Engineering Corp., as sales manager of the residential air diffuser division.

► ROBERT W. HUNDLEY as sales manager of the accessories division, Wm. Steinen Mfg. Co. Prior to his promotion Mr. Hundley was assistant sales manager. Paul Oehler & Co. has been named to represent the Steinen company in southern Illinois and in Missouri.

► JULES ALEXANDRE as sales manager for air conditioning for Emerson Radio and Phonograph Corp.

► J. AUSTIN MILLER as vice president in charge of franchises and sales for Shana Manufacturing, Inc. Mr. Miller was formerly vice president of the Wayne-Oliver Corp., where he supervised distribution of air conditioning equipment and related products.

► ROBERT A. SCHULZ as sales representative for the Thatcher Furnace Co. He will work out of the Chicago

office and will service wholesalers and dealers throughout Wisconsin and upper Michigan.



T. I. Byrd



Harold Faulkender

► T. I. BYRD and Harold Faulkender as directors of the Lau Blower Co. Mr. Byrd is the company's vice president in charge of sales; Mr. Faulkender is a vice president and general manager.

► F. H. LANGSENKAMP CO. as wholesaler of automatic heating and air conditioning equipment for the Heil Co. The Langsenkamp company, with branch offices in Fort Wayne, Indianapolis and South Bend, will cover parts of Indiana, Michigan and Ohio. Fred M. Dygert Sales Co., 645 Benjamin Ave., S. E., Grand Rapids, has been named wholesaler of the company's automatic heating and air conditioning equipment in the north and northwest parts of Michi-

Announcing the new...

BANNER BURNER

FOR 1955! Gas Heating featuring quiet economy with quality performance, ease of installation and more contractor profit. Write for details.

BANNER BURNER CO., 227 East Indianola Ave., Youngstown, Ohio



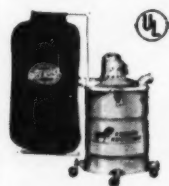
**ORNAMENTS
STAMPINGS & SPINNINGS**
Zinc Ornaments Available From Stock. Copper, brass, bronze, aluminum and stainless steel ornaments made up promptly.

If you don't have catalog K, send for it NOW.

MILLER & DOING

89 ADAMS STREET

BROOKLYN, N. Y.



Super Red Streak Model SH—Approved by Underwriters' Laboratories and Canadian Standards.



**Added Income, Bigger Profits,
The Easy Super Red Streak Way**

Clean all kinds of heating plants faster and easier with a Super Red Streak Model SH Furnace Cleaner. Helps sell repairs, new plants. Both wet and dry pick-up. Cleans chimneys from basement. Special non-clog filter bag for oil plants.

Ask your wholesaler. Write for free Super Sales Plan Book.

NATIONAL SUPER SERVICE CO., INC.

1944 N. 13th St. Toledo 2, Ohio

Sales and Service in Principal Cities.

In Canada: Plant Maintenance Equipment Co.

Toronto, Montreal, Vancouver

SUPER SUCTION

SINCE 1911

"THE DRAFT HORSE OF POWER SUCTION CLEANERS"

MIPATAN

Pittsburghlock
ELECTRIC
HAMMER



- Goes with you on the job
- Turns the flange on a Pittsburghlock
- Turns 30 Gauge through 24 gauge
- 25 feet per minute
- Perfectly balanced — weight is on the work
- Handle designed to fit hand
- No springs — special patented air shock in shuttle
- Plugs into any 110 volt AC DC current outlet
- Cam Driven

- Not eccentric
- Smooth — finished work looks rolled
- Fast — pays for itself in a short time

See this tool in action—Booth 5-113
Heating and Ventilating Show Philadelphia,
January 24-28th

GIBSON INDUSTRIES

965 W. Western Ave.

Muskegon, Michigan

"CORRECT PRACTICE in OIL HEATING"

NOW AVAILABLE TO YOU!

A complete reprint of the valuable series

by J. J. Mirabile

This practical series covers every angle of oil burner work, including arrangement of shop . . . stocking of parts . . . record-keeping . . . installation procedures . . . the handling of crews . . . how to make heating surveys . . . how to size combustion chamber . . . how to install thermostat . . . how to start the burner . . . how to use testing instruments . . . and how to operate a service department. It contains, as well, a complete list of causes and cures of oil burner troubles that will serve as a reliable guide in making service calls.

Every shop handling oil burner jobs should own this book. Full size, 8½ by 11 inches — 57 pages of practical helps. Send \$1.00 for a copy to the address below.

KEENEY PUBLISHING COMPANY

6 No. Michigan Avenue

Chicago 2, Ill.



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Accurately rolled—complete circles or any part thereof—made in every dimension, furnished with or without bolt or rivet holes.

Used for reinforcing tanks, joining pipe or smoke stacks, installing air conditioning fans, and thousands of other uses.

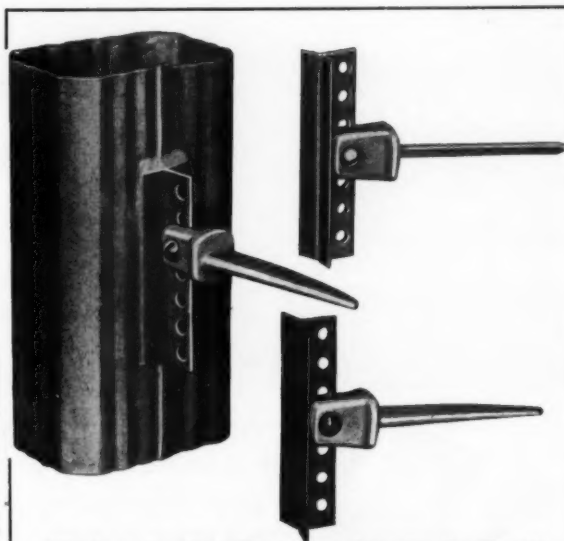
"FABRICATING to customers' specifications and prints" has enabled us to accumulate a large stock of punches and dies for piercing, blanking, notching and forming—available to you.

Write for our list of stock sizes and discounts—also our circular illustrating the scope of our fabricating services.

NATIONAL METAL FABRICATORS

2136 S. SAWYER AVE.

CHICAGO 23, ILL.



Higher in Quality . . . Lower in Cost!

F & F CONDUCTOR FASTENERS

Take less time to put in . . . make a more secure, permanent installation. Fastener is entirely concealed. Pipe stands ½" away from wall. Cadmium plated malleable iron drive (flat for bricks, round for wood) bolts to galvanized or copper perforated clip, adjustable for height. Clip is soldered to back of conductor. Write for details and prices!

FRANCK and FRIC

7109 KINSMAN ROAD • CLEVELAND 4, OHIO

appointments

(Continued)

gan's lower peninsula. The Engineering Specialty Co., 900 W. Ridge Rd., Gary, Ind., has been named heating and air conditioning wholesaler to cover parts of northwestern Indiana and several counties in northeastern Illinois.

► **W. K. WATTS** as manager of the newly formed refrigeration division of Perfex Corp., which will manufacture coils for air conditioning units.



W. K. Watts



Charles B. Bendix

► **CHARLES B. BENDIX** as manager of contract sales for Union Asbestos and Rubber Co.'s heating and cooling division. Mr. Bendix is a member of the American Society of Heating and Air-Conditioning Engineers.



J. B. Griffith



Richard B. Barger

► **J. B. GRIFFITH** as assistant to J. F. Ray, vice president in charge of sales for General Controls Co. In this capacity, Mr. Griffith's responsibilities will be primarily in the field of customer services. Richard B. Barger has been appointed New York regional manager by the company. Mr. Barger joined the firm in June, 1954, and before that was a service engineer for the Hartford Gas Co.

► **WALTER T. ROGERS** as manager of advertising and sales promotion for the Sturtevant Div., Westinghouse Electric Corp. Mr. Rogers joined the division in 1952 as an advertising representative. James C. Reynolds has been appointed manager of the Air Conditioning Division's newly created central district. In his new position Mr. Reynolds will be responsible for sales of air conditioning products in the central district

new!

RADIANT
AUTOMATIC
LOW
PRESSURE
OIL BURNER

Easy to operate, install, service and sell.

- Capacity 0.4 to 1.5 gal. per hour
- Non-Clog Air and Oil Nozzle
- Visible Dial to Calibrate Rating
- Two stage low pressure fuel unit

Exclusive Fuel Saving
"DIAL-SET" Meter

High Pressure Burner • Shell Head Burner
Winter Air Conditioner • Submersible Sump Pump
Utility Pump • Sump Pump

Write for complete literature on all Radiant Products.
RADIANT UTILITIES CORP. 8817 18th Ave., B'klyn 14, N.Y.

Order this time saver today

JET PATTERN DEVELOPER

ONLY \$69.50

COMPLETE WITH 30 TEMPLATES

LAYOUT ANY PATTERN COMPLETE IN MINUTES.
ATTACH TEMPLATES, ADJUST FOR PITCH OR OFFSET AND ROLL OUT PATTERN.

H. OWENS COMPANY
9300 Venice Blvd., Culver City, California

"WA-TROL"
Makes AIR-FLOW CONTROL
SIMPLE, QUICK, POSITIVE!

• Economical—made of famous Styrene
— Positive positioning at a glance — Sure spring lock mechanism — No cumbersome tools or troubles — It looks good, works right; is time tested — Saves 50% on balancing of installations. • Ask your wholesaler for Wa-Trols.

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National Sales Agents

THERMAL BLDG. • 1515 DALLAS • HOUSTON, TEXAS

STAXAUSTER can be used to convert all types of roof ventilators into powerful exhaust or air supply units.



Allen EXHAUST FANS

Whether you are working on new construction or motorizing existing ventilators, Allen Exhaust Fans will be the top-performance, quality answer to the particular ventilating problem. Easy to install, economical to operate, these fans meet a wide range of needs. In addition to the Fan Section shown above, the line includes the Remote Drive Allen Staxauster, and for wall installations, the Allen Exhaust Fan and the Lo-Noiz-Level Multiblade Fan. Our representatives are in most principal cities; names listed in our catalog in Sweet's Architectural File, Section 20b.



Remote Drive Allen Staxauster
Specially designed for applications handling corrosives and/or high-temperature air.

Write for catalog.

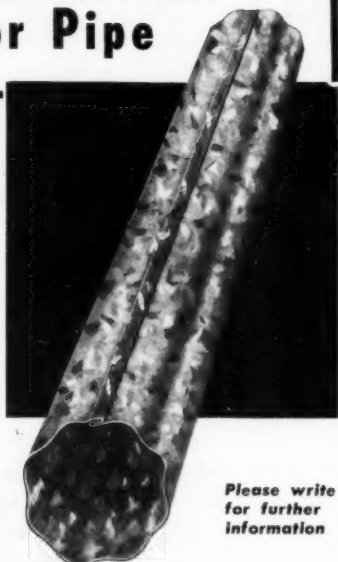


ALLEN COOLER & VENTILATOR INC.
ROCHESTER, MICH.

Roof Ventilators for Every Commercial and Industrial Need

La Crosse Gutters and Conductor Pipe

La Crosse
"Easy Slip"
Eaves
Trough



Please write for further information

Style "K"
Box Gutter

LA CROSSE
STEEL ROOFING & CORRUGATING CO.

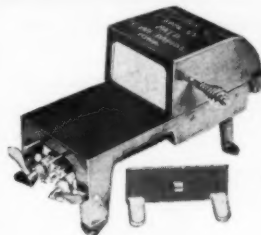
P.O. BOX 837

LA CROSSE, WIS.

Powerful, economical BENCH FURNACES

No. 101 Bench Furnace

Today's best bench furnace for efficient heating of soldering coppers up to 12 pounds a pair plus hardening, tempering and annealing carbon steels. Blower, muffle not needed. Has baffle plate that partly closes front of Johnson patented, shaped blast-directing hood. Bottom, hood refractory lined. 2 burners. Firebox $3\frac{3}{4} \times 4\frac{1}{2} \times 5\frac{1}{2}$. \$20.80 F.O.B. factory.



No. 118 Combination Bench Furnace

Efficient all-round shop furnace. Heats largest soldering coppers, stenciling irons; tempers, heat-treats, anneals, case hardens. Hood lid removable for inserting 22 lb. pot for melting lead, tin, babbitt; side doors allow heating long rods. 3 burners. Refractory-lined firebox $6\frac{1}{4} \times 5 \times 6\frac{1}{2}$. The pot and front baffle are included. \$38.50 F.O.B. factory.



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LOOK TO**

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Can Cut Your Sheet Metal
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1. More coverage per gallon
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Yes, 370 Special can save you money. Users report it covers more than five squares per gallon . . . sets up in 4 or 5 hours. It pleases your customers because it *really protects* against corrosion. Also available in green, blue, gray, brown and aluminum. **ORDER 370 SPECIAL NOW FROM YOUR DISTRIBUTOR**, or write for complete details and prices.



THOMPSON & COMPANY

1085 Allegheny Ave., Oakmont, Pa.

Established 1847

appointments

(Continued)

which includes the states of Ohio, West Virginia and Kentucky and parts of Pennsylvania, Michigan, Maryland and Indiana.

► **C. M. HATCHER** as general sales manager of American Coils Co. Mr. Hatcher was formerly with the Brunner Mfg. Co. where he served as advertising and sales promotional manager and acting assistant sales manager.

► **GERALD F. DEER** as manager of the Winkler Training Institute, Lebanon, Ind., sponsored by U. S. Machine Div., Stewart-Warner Corp. In addition to managing the institute, Mr. Deer will conduct the firm's special training classes in the field.

► **JAMES S. GARBER** as advertising manager for the C. A. Olsen Mfg. Co. Mr. Garber has had eight years of experience in merchandising and advertising major household equipment.

► **H. V. VAN VALKENBURG** as sales manager for the Anaconda Wire & Cable Co. Mr. Van Valkenburg, previously head of district sales in Chicago, will make his headquarters in the New York offices of

the company. Succeeding him as Chicago district sales manager is Ernest B. Miller, Jr. John N. Ratcliff, Jr. has been appointed district manager for the Houston sales district.

► **RICHARD J. JAYE** as a representative for the Synchromatic Corp. Mr. Jaye, who previously was on the office staff of the company's Watertown, Wis. plant, will handle sales in the Minnesota territory.



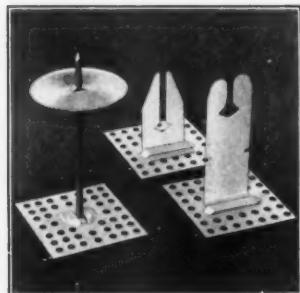
Richard J. Jaye



Robert T. Hlavin

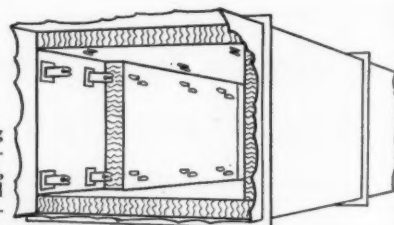
► **ROBERT T. HLAVIN** as a member of the sales staff of Maxitrol Co. In his new capacity, Mr. Hlavin will handle sales and customer service in the northeastern half of the country. Prior to joining the Maxitrol company he was sales manager of the industrial products division of Detroit Brass & Malleable Co.

APPLY INSULATION EASILY, ECONOMICALLY



Stic-Klips permanently bind almost any insulating substance to masonry, wood, metal — flat, corrugated, curved, unusual-shaped. Eliminate drilling, puncturing metal. This modern method is used for heating, ventilating, air conditioning, processing equipment, cold storage, acoustical, marine installations.

Stic-Klip®



Typical Stic-Klip application for duct liner

Write Dept. A.A.,
for illustrated booklet on any of these applications.

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"B B" Quality



'THE RIVAL'
STRAP HANGER

for single bead and
double bead gutter

SIZES: 4" - 5" - 6"

GALVANIZED—COPPER—STAINLESS

Packed 100 pieces per carton.

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JOBBERS EVERYWHERE

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FURNACES PUT OUT BY
AMERICAN FURNACE & FOUNDRY CO.
HOMER FURNACE CO.
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also

Repairs for other makes such as: PENINSULAR, LAUREL,
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WILLIAMSON, AGRICOLA, ETC.

Phone 5322 — Write — Wire

LIVINGSTON, INC., MARSHALL MICHIGAN

Your warm air heating supply house



WEBCO portable
SHEET METAL
BENDING BRAKE

in the shop or on the job — a real
labor saver . . .

No question about the WEBCO saving
you time and money. It's been designed to handle 20 gauge mild steel on a
1/2" folding arm, easily and with accurate alignment.
You can't beat the WEBCO for duct work and special fabrication. Please
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.....McMURRAY ROAD BRIDGEVILLE, PA.

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**FURNACE PIPE
AND FITTINGS,**
Prefabricated Ducts,
also conductor pipe, eaves
trough, drip edge, rake strip, etc.
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Each of OUR organizations is committed to a firm policy
of the "best possible service" to every Warm Air Dealer,
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THE FAMOUS FURNACE CO.
CLEVELAND OHIO

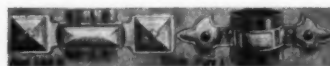
The Famous Furnace Co. of Akron, Ohio	The Famous Furnace Co. of Mansfield, Ohio
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3" 4" 5" 2" 3" 4"
Sizes Sizes

"Rival" & "Fitrite"
Ornamental Leader
Straps — Copper
& Zinc in 6 styles
SOLD THROUGH
JOBBER ONLY

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"FITRITE"
3 Pipes,
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For all
types of steep
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For smaller
roofs, new
or old.

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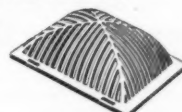
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operation
Gearing as-
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Bronze and Aluminum



BEEHIVE
3"-8" round.
Also 3" x 4",
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3 Types
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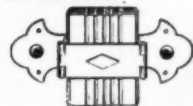
A New Vise-grip Made
Exclusively For Us



Portable Electric SAW GUN



"FITRITE" CAST BRONZE HINGED LEADER BAND



Made for
3" & 4"
square
corrugated
also 3" &
4" round

"FITRITE" ADJUSTABLE SWING CHIMNEY JACK FRAME



Five sizes
in one
For 6"-10"
pipe.

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SERVICE SECTION

ALL STYLES

SKYLIGHTS

ALL SIZES

WILLIS SKYLIGHTS are designed to give a maximum of light with perfect ventilation. Constant improvement for over forty years, guarantees WILLIS customers greater value, both in construction and workmanship.

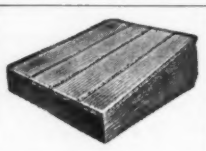
Willis skylights are constructed with condensation gutters on all bars and at the eaves to carry away the moisture. They are water-tight without the use of putty and are easily installed on old or new buildings.



No. 705

Our engineering department will be glad to assist you in your skylight problems.

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No. 505

WILLIS STEEL CORPORATION

Galesburg, Illinois

Established in 1891

It's CHIMNEY TOP

Time Again!

For Better Chimney Draft And Improved Stack Performance Use.

ACCURATE REVOLVING VENTILATORS

Sizes 3" to 36" Positively Prevents Downdraft — Storm And Rainproof — Simple in Design — Durable in Construction The Best Ventilator for the Lowest Price.

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Birks Pittsburgh Lock Opener



OPENS

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- Easy To Operate
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- \$45.00 Complete

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BIRKS MFG. CO.

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AXES
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Rates for classified advertising are 12 cents for each word, including heading and address. One inch \$6.00. Count nine words for keyed address. Minimum \$2.00.

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DETAILER—DRAFTSMAN—For layout and development of sheet metal, steel plate and structural work. Must have some knowledge of triangulation and pattern development. Steady work guaranteed. Shop currently working 45-50 hours. Fully paid insurance plan, Blue Cross and Blue Shield, paid holidays, paid vacations. Application should clearly outline, experience, education, age, family status, availability date and salary expected. THE KIRK & BLUM MANUFACTURING CO., 3120 Forrer St. (South St.). Oakley, Cinti. 9, Ohio.

SALESMEN: Salary and commissions, car furnished, company insurance, to sell the new line of Rybolt furnaces, coal, oil and gas, packaged Summer Air Conditioners, incinerators and several new items to be introduced early Spring. Call or write Rybolt Heater Co., Ashland, Ohio.

situations open ...

SALESMAN: Manufacturer of nationally distributed line of warm air heating equipment wants resident salesman for central Illinois. Drawing account and commission. Car will be furnished. Opportunity for permanent position with good future. Give details in first reply. Address Key 981, American Artisan, 6 North Michigan Avenue, Chicago 2, Ill.

WANTED: By large reputable wholesale plumbing and heating firm in Central Illinois. Experienced Furnace and Air Conditioning Salesman and Executive. Good opportunity for competent man. Address Key 979, American Artisan, 6 North Michigan Avenue, Chicago 2, Ill.

agents wanted ...

MANUFACTURERS REPRESENTATIVES: Salary and commissions, car furnished, company insurance, to sell the new line of Rybolt furnaces, coal, oil and gas, packaged Summer Air Conditioners, incinerators and several new items to be introduced early Spring. Call or write Rybolt Heater Co., Ashland, Ohio.

Manufacturers' Sales Representatives wanted by manufacturers' of gas and oil fired warm air furnaces. Must be well qualified and established. Territory open — Oklahoma, Texas, Louisiana, Arkansas, New Mexico, Arizona, and Utah. Address Key 980, American Artisan, 6 North Michigan Avenue, Chicago 2, Ill.

... are you looking around for items or personnel? A simple classified advertisement here will help quickly, at low cost.

Address Changing? Tell Us AT ONCE!

A new postal regulation relating to the handling of undelivered mail may result in some issues of *American Artisan* being thrown away instead of being returned to us — as they have been in the past — for remailing to your new or correct address.

To avoid missing any issue of *American Artisan* it is more important than ever to report both your new and old address to us and your post office. Deadline is the 18th of the preceding month for the next issue. Send changes — and new local postal delivery zone — to

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Rates for display space in the Service Section are \$12.00 per inch per insertion. One-inch minimum space accepted.

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RUBBER LADDER SHOES
for safe climbing
... Order today.
JOHNSON LADDER SHOE CO.

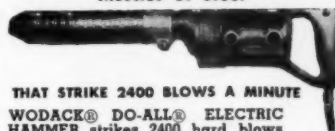
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Write for Details
DOYLE VACUUM CLEANER CO.
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WODACK® DO-ALL® ELECTRIC HAMMER strikes 2400 hard blows a minute, drilling concrete up to 3" a minute. Runs from lamp socket. Is changed to a 3/4" electric drill by opening the chuck and loosening the clamping screw. Preferred by many thousands of contractors and maintenance men. Get the facts.

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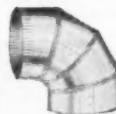
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Registers and Grilles
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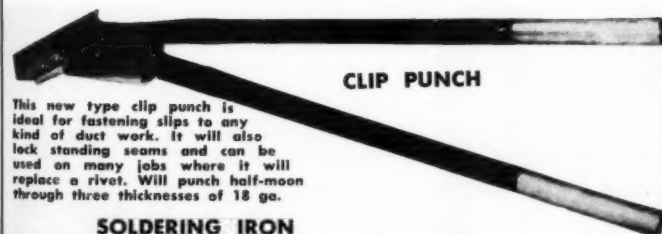
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and BIGGER PROFITS

Get them from

REINER & CAMPBELL

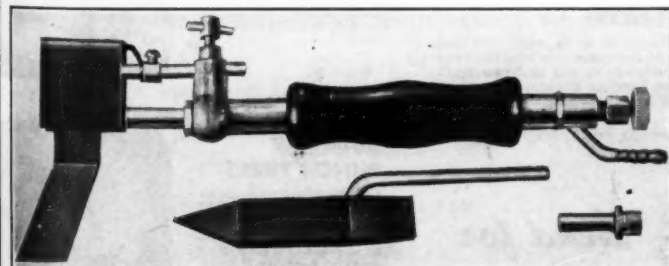


CLIP PUNCH

This new type clip punch is ideal for fastening slips to any kind of duct work. It will also lock standing seams and can be used on many jobs where it will replace a rivet. Will punch half-moon through three thicknesses of 18 ga.

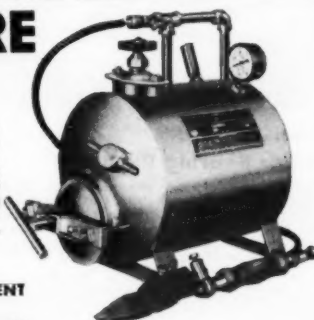
SOLDERING IRON

- Hot iron in one minute with any acetylene gas having a pressure of five pounds or more. Always the right amount
- of heat for heaviest as well as lightest soldering job.



SOLDERING OUTFIT

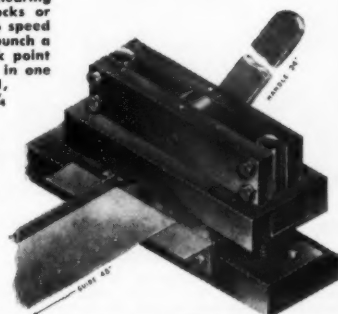
- Will give you hot soldering iron in one minute—Solders eight hours for 10c
- Right amount of heat—No changing of irons—Make your own fuel from water and carbide.



THOR GOVERNMENT LOCK DIES

Bench model hand operated tool for shearing ends of Govt. locks or slips. Designed to speed work. Shear — punch a 5/32" hole, mark point at break line all in one operation. Sizes 1, 1 1/4, and 1 1/2 inch.

This die is equipped with a 48" table guide with adjustable stop for support of the metal when shearing.



QUICK SET DIVIDERS

The fastest and quickest setting dividers on the market. Circles up to 48". No center punch required when working on metal.



DRIVE CLEAT NOTCHER

For notching drive cleats up to 3 in. in width, 22-ga. or lighter. Can be operated by hand or foot or can be easily mounted on the bench or on the job with clamps or bolts and screws.



REINER & CAMPBELL CO., INC.

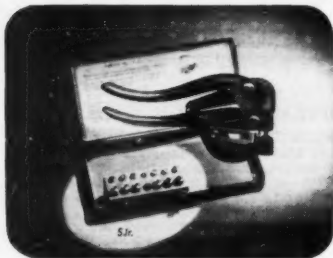
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Newark 5, N. J.

SHEET METAL WORKING MACHINERY & TOOLS, NEW and USED

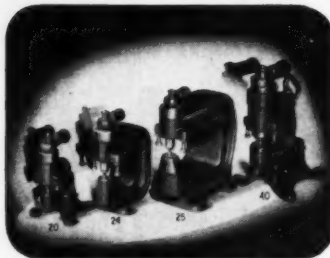
WHITNEY - JENSEN TOOLS

44 YEARS
EXPERIENCE



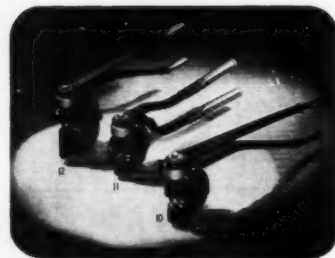
**No. 5 Jr.
Hand PUNCH**

Powerful, easy-to-use punch weighing only 2-3/4 lbs. Capacity — 1/4" hole through 16 ga. mild steel. Adjustable locating stop permits quick setting to any throat depth up to 2". Furnished with 7 punches and dies in metal case.



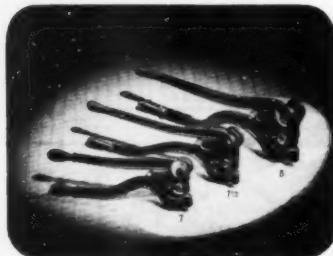
**Nos. 20, 24, 25, 40
Ball Bearing PUNCHES**

Screw press action with ball bearings in the race give tremendous power. Replacement ratchet handles available for Nos. 20, 24, and 25; bench bases for Nos. 20 and 40. For metal 3/8", 1/2" and 5/8" thick.



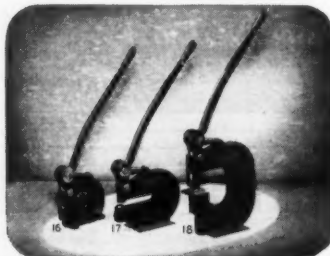
**Nos. 10-11-12
Ball Bearing PUNCHES**

Ball bearing screw principle enables each to develop over 14,000 lbs. punching pressure. Nos. 10 and 11 identical except for tubular handles for carrying punches and dies in No. 11. No. 12 has higher and deeper throat. Capacities — 3/8" hole through 1/4" mild steel.



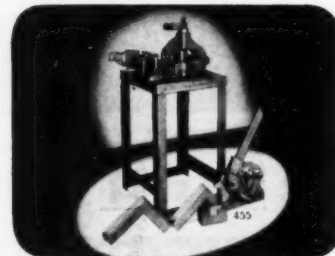
**Nos. 7-7 1/2-8
Roller Bearing PUNCHES**

Powerful, lever-type punches with roller bearings. Will punch and strip positively inside 90°. Lever cannot disengage by moving too far in either direction. Quick change punches and dies. Swivel bases available. Capacity — mild steel up to 1/4" thick.



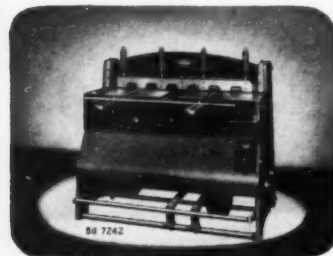
**Nos. 16, 17, 18
Bench PUNCHES**

Roller bearing, lever-type punches for bench use. No. 18 has higher and deeper throat than Nos. 16 and 17. Capacity — mild steel: No. 16 — 3/8" through 1/4"; No. 17 — 1/4" through 1/4"; No. 18 — 13/16" through 12 ga.



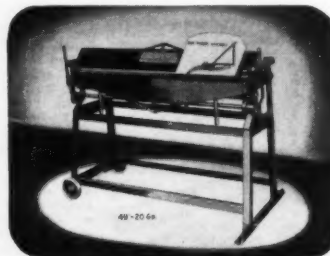
**No. 455
Angle Iron COMBINATION**

Strong and compact unit for shearing, notching, and bending angle iron. For on the job work or permanent mounting in the shop. Capacity — all sizes angle iron up to and including 2" x 2" x 1/4".



**No. 72 Series
Power Squaring SHEARS**

Fast machines for jobbing or production work. Flywheel and motor enclosed... simplified blade adjustment. In four sizes: widths of 36" and 42" have 16 ga. capacity; 42" machine shown has 14 ga. capacity; 60" has 12 ga. capacity.

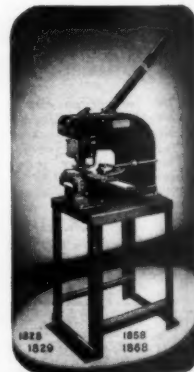


**49" 20 Ga.
Bending BRAKES**

Form a 1/2" flange in 20 ga. mild steel their entire length. In two styles: for straight bending or for combination box and pan work. Roller bearing bending brakes in 18 ga. or 16, 14, 12 ga. capacities also available.

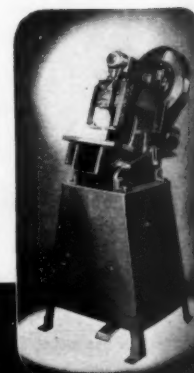
**Foot, Lever, and
Power PUNCHES**

Many models from which to choose. Lever punches have powerful geared action... power presses have flywheel in rear. Throat depths up to 24". Auxiliary attachments available... wide range of punches and dies. Catalog gives full details and specifications of each.



**No. 127
Inclined
PUNCH PRESS**

Can be tilted to a maximum of 25°. Flywheel at rear for safety and easier feeding of stock. Rated at 275 strokes per minute; capacity 5 tons. Throat depth 6", throat height 7". Small, compact and powerful. Also 10, 20, 35 ton models available with throat depths up to 24".



Also: RIVET SQUEEZERS
BENCH SHEARS
HAND TOOLS
PUNCHES
DIES

for THE METAL-WORKING INDUSTRY

*Send for
Catalog*

Section of JANUARY 1955

AMERICAN ARTISAN 1955 DIRECTORY

OF WARM AIR HEATING, RESIDENTIAL AIR CONDITIONING AND SHEET METAL PRODUCTS

Part 1.—Products Advertised In This Issue . . . Page 3d

For the names of the manufacturers of products advertised in this issue, look in Part 1, where the advertised products are classified in "directory style" with the noun governing. For the page on which you will find the advertising of manufacturers in this issue, see the last two pages of this yellow Directory Section.

Part 2.—All Products Classified Page 10d

If you want to know the names of one or more manufacturers making a certain product, look in Part 2, where all products are classified alphabetically in directory style with the noun governing (for instance, Forced Warm Air Furnaces are listed as Furnaces, Forced Warm Air).

Part 3.—All Trade Names Page 90d

If you have the trade name of a product and want to know who manufactures it, look in Part 3, where trade names are alphabetically listed. Trade names the same as or identifiable with the company name are not listed. Manufacturers with such trade names can be readily identified under their product classification in Parts 1 and 2.

Part 4.—All Manufacturers' Addresses . . . Page 112d

For the complete name and address of any manufacturer, look in Part 4.

Index to Advertisers Page 132d

American Artisan
6 North Michigan Ave.
Chicago 2, Illinois

AMERICAN ARTISAN 1955 DIRECTORY

OF WARM AIR HEATING, RESIDENTIAL AIR
CONDITIONING AND SHEET METAL PRODUCTS

For the names of the manufacturers of products advertised in this issue, see the index to the directory on the inside back cover. The index is located in the back of the directory.

This Directory Section was compiled

and is copyrighted, 1955, by the Keeney Publishing Co.,

6 N. Michigan Ave.,

Chicago 2, Ill.

For the complete name and address of any manufacturer, see the index to the directory on the inside back cover.

Index to Advertisers Page 132

AMERICAN ARTISAN
6 North Michigan Ave.
Chicago 2, Illinois

Section of
American Artisan
**1955 DIRECTORY OF WARM AIR HEATING, RESIDENTIAL
AIR CONDITIONING AND SHEET METAL PRODUCTS**

**[PART 1—Products Advertised
In This Issue]**

The products classified in this Part 1 of the Directory Section are only those actually advertised in this issue. For the complete listings of these and other products made by all manufacturers, see Part 2, starting on page 10d.

**ANGLES, ANGLE RINGS, BARS, BEAMS, CHANNELS
AND TEES**

AMERICAN BRASS CO.
KIRK & BLUM MFG. CO.
NATIONAL METAL FABRICATORS
UNITED STATES STEEL SUPPLY CO.

BEARINGS, PILLOW BLOCK

RANDALL GRAPHITE BEARINGS, INC.

BLOWER-FILTER UNITS, WARM AIR FURNACE

BRUNDAGE CO.
PEERLESS ELECTRIC CO.
VIKING AIR CONDITIONING DIV., NATIONAL
RADIATOR CO.

BLOWERS, EXHAUSTERS

BRUNDAGE CO.

BLOWERS, FURNACE, CENTRIFUGAL

BRUNDAGE CO.
CLARAGE FAN CO.
MORRISON PRODUCTS, INC.
PEERLESS ELECTRIC CO.
UTILITY FAN CORP., DIV. OF UTILITY APPLIANCE
CORP.
VIKING AIR CONDITIONING DIV.,
NATIONAL RADIATOR CO.

**BLOWERS, VENTILATING SYSTEM (CAPACITY 4000
CFM UP)**

CLARAGE FAN CO.

BLOW PIPE ACCESSORIES

KIRK & BLUM MFG. CO.

BODIES AND ACCESSORIES, TRUCK

MORRISON STEEL PRODUCTS, INC.

BRUSHES, ACID

SCHAEFER BRUSH MFG. CO.

BRUSHES, FURNACE FLUE

SCHAEFER BRUSH MFG. CO.

BURNERS, CONVERSION, RESIDENTIAL, GAS

ADAMS MFG. CO.
BANNER BURNER CO.
CENTURY ENGINEERING CORP.
HEIL CO.
HENRY FURNACE CO.
INTERNATIONAL HEATER CO.
OLSEN MFG. CO., THE C. A.
STEWART-WARNER CORP., U. S. MACHINE DIV.
SYNCRONATIC CORP.
WATERMAN-WATERBURY CO.

**BURNERS, CONVERSION, RESIDENTIAL, OIL, HIGH
PRESSURE**

BECKETT CORP., R. W.
CENTURY ENGINEERING CORP.
HEIL CO.
HENRY FURNACE CO.
INTERNATIONAL HEATER CO.
NU-WAY CORP., THE
OLSEN MFG. CO., THE C. A.
QUIET AUTOMATIC BURNER CORP.
STEWART-WARNER CORP., U. S. MACHINE DIV.
SUNDSTRAND ENGINEERING CO.
SUN-RAY BURNER MFG. CORP.
WISCONSIN OIL BURNER CO.

**BURNERS, CONVERSION, RESIDENTIAL, OIL, LOW
PRESSURE**

RADIANT UTILITIES CORP.
STEWART-WARNER CORP., U. S. MACHINE DIV.

**CALCULATORS, HEATING, AIR CONDITIONING
AND SHEET METAL**

MORTON, PAUL S.

CAPS AND TOPS, CHIMNEY

ACCURATE SHEET METAL & MFG. WORKS
BOSTON MACHINE WORKS CO.
WALKER MFG. & SALES CORP.

CHIMNEYS, PREFABRICATED

CONDENSATION ENGINEERING CORP.
MAJESTIC CO., INC.
VAN-PACKER CORP.
WALLACE CO., WILLIAM, METALBESTOS DIV.

CLEANERS, VACUUM, FURNACE

DOYLE VACUUM CLEANER CO.
EMPIRE CHEMICAL PRODUCTS CO.
NATIONAL SUPER SERVICE CO., INC.
PREMIER CO.

**For the page on which you will find the advertising of manufacturers in this issue,
see the Index to Advertisers on the last page of this yellow Directory Section**

COILS, COOLING, DIRECT EXPANSION

AEROFIN CORP.
PERFEX CORP.
WORTHINGTON CORP.

COILS, HEATING

AEROFIN CORP.

COMPRESSORS, REFRIGERATING

COPELAND REFRIGERATION CORP.
TECUMSEH PRODUCTS CO.

CONDENSING UNITS, REFRIGERATING

COPELAND REFRIGERATION CORP.
TECUMSEH PRODUCTS CO.
UNITED STATES AIR CONDITIONING CORP.
WILLIAMSON HEATER CO.
WORTHINGTON CORP.

CONNECTIONS, DUCT, FLEXIBLE

DURO-DYNE CORP.
ELGEN MFG. CORP.
WILSON, INC., GRANT

CONTROLS, BLOWER

MINNEAPOLIS-HONEYWELL REGULATOR CO.

CONTROLS, COMBINATION FAN AND LIMIT, LINE OR LOW VOLTAGE

CAM-STAT INC.
PENN CONTROLS, INC.
PERFEX CORP.

CONTROLS, COMBUSTION, LINE OR LOW VOLTAGE

PENN CONTROLS, INC.

CONTROLS, FAN

CAM-STAT INC.
MINNEAPOLIS-HONEYWELL REGULATOR CO.
PENN CONTROLS, INC.

CONTROLS, HUMIDISTAT

MINNEAPOLIS-HONEYWELL REGULATOR CO.

CONTROLS, LIMIT, LINE OR LOW VOLTAGE

CAM-STAT INC.
PENN CONTROLS, INC.

CONTROLS, MOTOR, DUCT DAMPER

MINNEAPOLIS-HONEYWELL REGULATOR CO.

CONTROLS, PILOTS, GAS BURNER

MILWAUKEE GAS SPECIALTY CO.
PERFEX CORP.

CONTROLS, PRESSURE, REFRIGERATING

MINNEAPOLIS-HONEYWELL REGULATOR CO.

CONTROLS, RELAY

MINNEAPOLIS-HONEYWELL REGULATOR CO.

CONTROLS, SWITCHES, MANUAL AND AUTOMATIC

MINNEAPOLIS-HONEYWELL REGULATOR CO.

CONTROLS, THERMOSTATS, LINE OR LOW VOLTAGE

CAM-STAT INC.

MINNEAPOLIS-HONEYWELL REGULATOR CO.
PENN CONTROLS, INC.
PERFEX CORP.

CONTROLS, WATER HEATER

CAM-STAT INC.

CONTROL SYSTEMS, HEATING, VENTILATING AND AIR CONDITIONING

MINNEAPOLIS-HONEYWELL REGULATOR CO.

CONTROL SYSTEMS, ZONE

MINNEAPOLIS-HONEYWELL REGULATOR CO.

DAMPERS, DRAFT, BAROMETRIC

COLE-SEWELL ENGINEERING CO.
FIELD CONTROL DIV., H. D. CONKEY & CO.
WALKER MFG. & SALES CORP.
WINDMASTER CORP.

DAMPERS, WARM AIR PIPE

MALCO PRODUCTS

DIES, PUNCH

REINER & CAMPBELL CO., INC.

DIFFUSERS, AIR, BASEBOARD

AIR CONTROL PRODUCTS, INC.
AUER REGISTER CO.
BERGER FURNACE CORP.
BRANDES CO.
CHAR-GALE MFG. CO.
GERWIN INDUSTRIES
HART & COOLEY MFG. CO.
JETTRONAIR, INC.
LIMA REGISTER CO.
STEEL CITY FURNACE CO.
TITUS, INC.
TUTTLE & BAILEY, INC.
UNITED STATES REGISTER CO.
VECTAIRE MFG. CO.

DIFFUSERS, AIR, CEILING

AIR CONTROL PRODUCTS, INC.
ANEMOSTAT CORP. OF AMERICA
BARBER-COLMAN CO.
HART & COOLEY MFG. CO.
LIMA REGISTER CO.
TITUS, INC.
TUTTLE & BAILEY, INC.
UNITED STATES REGISTER CO.
UNIVERSAL DIFFUSER CORP.

DIFFUSERS, AIR, FLOOR

AIR CONTROL PRODUCTS, INC.
CHAR-GALE MFG. CO.
HART & COOLEY MFG. CO.
LIMA REGISTER CO.
UNITED STATES REGISTER CO.

DIFFUSERS, AIR, WALL

A & A REGISTER CO.
AIR CONTROL PRODUCTS, INC.
ANEMOSTAT CORP. OF AMERICA
AUER REGISTER CO.
HART & COOLEY MFG. CO.
LIMA REGISTER CO.
STANDARD STAMPING & PERFORATING CO.
UNITED STATES REGISTER CO.
UNIVERSAL DIFFUSER CORP.

DRAFT BOOSTERS, MECHANICAL

QUICKDRAFT CO.

DRAFT DIVERTERS, GAS

EXCELSIOR STEEL FURNACE CO.

For the page on which you will find the advertising of manufacturers in this issue, see the index to Advertisers on the last page of this yellow Directory Section

DUCT AND DUCT FITTINGS, PREFABRICATED, METAL

ADELTA MFG. CO.
AJAX FURNACE FITTING CO., DIV. CINCINNATI SHEET METAL & ROOFING CO.
BECKETT & CO. THOMAS
CHAMPION FURNACE PIPE CO.
EXCELSIOR STEEL FURNACE CO.
HENRY FURNACE CO.
INTERNATIONAL HEATER CO.
JETTRONAIRE, INC.
MEYER & BRO. CO., F.
SUPERIOR METAL FABRICATING CO.
THOR METAL PRODUCTS CO., INC.
WILLIAMSON HEATER CO.

FACES, RETURN AIR, METAL

AIR CONTROL PRODUCTS, INC.
AUER REGISTER CO.
HART & COOLEY MFG. CO.
UNITED STATES REGISTER CO.

FANS, PROPELLER TYPE, EXHAUSTERS

CLARAGE FAN CO.
PEERLESS ELECTRIC CO.

FANS, PROPELLER TYPE, FURNACE

CORLETT-TURNER CO.

FANS, PROPELLER TYPE, NIGHT COOLING

PEERLESS ELECTRIC CO.
VIKING AIR CONDITIONING DIV., NATIONAL RADIATOR CO.

FANS, PROPELLER TYPE, VENTILATING SYSTEM

CLARAGE FAN CO.

FASTENINGS, INSULATION

STIC-KLIP MFG. CO., INC.

FILTERS, AIR, CLEANABLE

EVANS CORP., GEORGE
METAL WOOL DIV., CAREY ELECTRONIC ENGINEERING CO.

FILTERS, AIR, ELECTROSTATIC

WESTINGHOUSE ELECTRIC CORP., AIR CONDITIONING DIV.

FILTERS, AIR, RENEWABLE MEDIA

AMERICAN AIR FILTER CO., INC.

FILTERS, AIR, THROWAWAY

AMERICAN AIR FILTER CO., INC.
OWENS-CORNING FIBERGLAS CORP.

FILTERS, FUEL OIL

AUTO-FLO CORP.
GENERAL FILTERS, INC.
MORSE-SMITH-MORSE CO., THE

FLASHINGS, ROOF, PREFABRICATED

HUSSEY & CO. C. G.
REVERE COPPER AND BRASS, INC.

FLASHINGS, THROUGH-WALL, PREFABRICATED

HUSSEY & CO., C. G.

FLUX FOR ALL SOLDERS

ALLEN CO., INC., L. B.

FRAMES, CHIMNEY CAP

LEVOW, DAVID

FURNACES

ADVANCE FURNACE CO. (GENERAL)
AIRTEMP DIV. CHRYSLER CORP. (GENERAL)
BERGER FURNACE CORP. (GENERAL)
GENERAL ELECTRIC CO., AIR CONDITIONING DIV. (GENERAL)
HEIL CO. (GENERAL)
LENNOX FURNACE CO. (GENERAL)
MUELLER CLIMATROL (GENERAL)
PEERLESS FURNACE AND FOUNDRY CO. (GENERAL)
PERFECTION STOVE CO. (GENERAL)
SCHWAB FURNACE CO. (GENERAL)
STEWART-WARNER CORP., U. S. MACHINE DIV. (GENERAL)
THATCHER FURNACE CO. (GENERAL)
WORTHINGTON CORP. (GENERAL)

FURNACES, FORCED WARM AIR, COUNTERFLOW

CENTURY ENGINEERING CORP.
FOREST CITY FOUNDRIES CO., NIAGARA FURNACE DIV.
HALL-NEAL FURNACE CO.
HENRY FURNACE CO.
INGERSOLL CONDITIONED AIR DIV., BORG-WARNER CORP.
INTERNATIONAL HEATER CO.
MORRISON STEEL PRODUCTS, INC.
OLSEN MFG. CO., THE C. A.
PATTEN CO., J. V.
RICHMOND RADIATOR CO., AFFIL. REYNOLDS METALS CO.
SEQUOIA MFG. CO.
SOUTHWEST MFG. CO.
SYNCHROMATIC CORP.
WATERMAN-WATERBURY CO.
WILLIAMSON HEATER CO.

FURNACES, FORCED WARM AIR, HIGHBOY

CENTURY ENGINEERING CORP.
FOREST CITY FOUNDRIES CO., NIAGARA FURNACE DIV.
HALL-NEAL FURNACE CO.
HENRY FURNACE CO.
INGERSOLL CONDITIONED AIR DIV., BORG-WARNER CORP.
INTERNATIONAL HEATER CO.
JETTRONAIRE, INC.
MORRISON STEEL PRODUCTS, INC.
OLSEN MFG. CO., THE C. A.
PATTEN CO., J. V.
RICHMOND RADIATOR CO., AFFIL. REYNOLDS METALS CO.
SEQUOIA MFG. CO.
SOUTHWEST MFG. CO.
SYNCHROMATIC CORP.
WATERMAN-WATERBURY CO.
WILLIAMSON HEATER CO.
ZINK CO., JOHN

FURNACES, FORCED WARM AIR, HORIZONTAL

CENTURY ENGINEERING CORP.
HALL-NEAL FURNACE CO.
HENRY FURNACE CO.
INGERSOLL CONDITIONED AIR DIV., BORG-WARNER CORP.
INTERNATIONAL HEATER CO.
MORRISON STEEL PRODUCTS, INC.
OLSEN MFG. CO., THE C. A.
PATTEN CO., J. V.
RICHMOND RADIATOR CO., AFFIL. REYNOLDS METALS CO.
SEQUOIA MFG. CO.
SOUTHWEST MFG. CO.
WATERMAN-WATERBURY CO.
WILLIAMSON HEATER CO.

FURNACES, FORCED WARM AIR, LOWBOY

CENTURY ENGINEERING CORP.
FOREST CITY FOUNDRIES CO., NIAGARA FURNACE DIV.
HALL-NEAL FURNACE CO.
HEIL CO.
HENRY FURNACE CO.
INGERSOLL CONDITIONED AIR DIV., BORG-WARNER CORP.
INTERNATIONAL HEATER CO.
JETTRONAIRE, INC.
MORRISON STEEL PRODUCTS, INC.
OLSEN MFG. CO., THE C. A.
PATTEN CO., J. V.
RICHMOND RADIATOR CO., AFFIL. REYNOLDS METALS CO.
STEEL CITY FURNACE CO.
SUNBEAM AIR CONDITIONER DIV., AMERICAN RADIATOR & STANDARD SANITARY CORP.
SYNCHROMATIC CORP.
WATERMAN-WATERBURY CO.
WILLIAMSON HEATER CO.

For the page on which you will find the advertising of manufacturers in this issue, see the Index to Advertisers on the last page of this yellow Directory Section

FURNACES, FORCED WARM AIR, WALL

QUINCY STOVE MFG. CO.

FURNACES, FORCED WARM AIR, WITH DOMESTIC HOT WATER SUPPLY

METROMATIC MFG. CO.

FURNACES, FORCED WARM AIR, 300,000 BTU AND OVER

MAMMOTH FURNACE CO.

FURNACES, SOLDERINGJOHNSON GAS APPLIANCE CO.
MONCRIEF-LENOIR MFG. CO.
RELIABLE GAS PRODUCTS CO.
TURNER BRASS WORKS**FURNACES, WARM AIR, GRAVITY**CENTURY ENGINEERING CORP.
HALL-NEAL FURNACE CO.
HENRY FURNACE CO.
INTERNATIONAL HEATER CO.
MORRISON STEEL PRODUCTS, INC.
OLSEN MFG. CO., THE C. A.
PATTEN CO., J. V.
RICHMOND RADIATOR CO., AFFIL. REYNOLDS METALS CO.
WATERMAN-WATERBURY CO.**FURNACES, WARM AIR, GRAVITY, FLOOR**ADVANCE FURNACE CO.
SOUTHWEST MFG. CO.
ZINK CO., JOHN**FURNACES, WARM AIR, GRAVITY, WALL**ADVANCE FURNACE CO.
MORRISON STEEL PRODUCTS, INC.
SOUTHWEST MFG. CO.
STEWART-WARNER CORP., U. S. MACHINE DIV.
ZINK CO., JOHN**GAGES, TANK, FUEL OIL**KRUEGER SENTRY GAUGE CO.
MORSE-SMITH-MORSE CO., THE
SCULLY SIGNAL CO.**GATES, BLAST**

KIRK & BLUM MFG. CO.

GUARDS, SNOW

LEVOW, DAVID

GUTTER ACCESSORIESBERGER BROS. CO.
CHAR-GALE MFG. CO.
CHASE BRASS & COPPER CO., INC.
CINCINNATI ELBOW CO.
FRANCK AND FRIC
HUSSEY & CO., C. G.
INLAND STEEL PRODUCTS CO.
LEVOW, DAVID
OBDYKE, INC., BENJAMIN F.
THOR METAL PRODUCTS CO., INC.**GUTTERS**CHAR-GALE MFG. CO.
CHASE BRASS & COPPER CO., INC.
HUSSEY & CO., C. G.
INLAND STEEL PRODUCTS CO.
LACROSSE STEEL ROOFING & CORRUGATING CO.
OBDYKE, INC., BENJAMIN F.
THOR METAL PRODUCTS CO., INC.**HAMMERS, POWER**BURGESS THOMAS CO.
GIBSON INDUSTRIES
WODACK ELECTRIC TOOL CORP.**HANGERS, DUCT**

HEXDALL CO., A. M.

HARDWARE, CABINET AND CASING

NATIONAL LOCK CO.

HARDWARE, DUCT FITTING

DURO-DYNE CORP.

HEATERS, DIRECT FIRED, FLOOR

MAMMOTH FURNACE CO.

HEATERS, DUCT

REZNOR MFG. CO.

HEATERS, UNITDELTA HEATING CORP.
HENRY FURNACE CO.
MODINE MFG. CO.
OLSEN MFG. CO., THE C. A.
SURFACE COMBUSTION CORP.
ZINK CO., JOHN**HEATERS, WATER, STORAGE TYPE, DOMESTIC**SMITH CORP., A. O. PERMAGLAS DIV.
STEWART-WARNER CORP., U. S. MACHINE DIV.**HOUSINGS, BLOWER AND FAN**

BRUNDAGE CO.

HUMIDIFIERS, FURNACE, AUTOMATIC, EVAPORATIVEAUTOMATIC HUMIDIFIER CO.
CHAR-GALE MFG. CO.
CLEVELAND HUMIDIFIER CO.
MAID-O-MIST, INC.
SKUTTLE MFG. CO.
VIKING AIR CONDITIONING DIV.
NATIONAL RADIATOR CO.**HUMIDIFIERS, FURNACE, AUTOMATIC, SPRAY**

CENTURY ENGINEERING CORP.

INCINERATORSHENRY FURNACE CO.
MAJESTIC CO., INC.
OLSEN MFG. CO., THE C. A.
SCHWAB FURNACE CO.**INSULATION, DUCT**

GLASS FIBERS, INC.

INSULATION, SOUND ABSORBING

GLASS FIBERS, INC.

LIFTS, SKYLIGHT

LEVOW, DAVID

LININGS, CHIMNEYEXCELSIOR STEEL FURNACE CO.
WALLACE CO., WILLIAM, METALBESTOS DIV.**LOUVERS AND SHUTTERS**ELGO SHUTTER & MFG. CO.
PEERLESS ELECTRIC CO.
SWARTWOUT CO.

For the page on which you will find the advertising of manufacturers in this issue,
see the Index to Advertisers on the last page of this yellow Directory Section

MACHINERY EQUIPMENT DISTRIBUTORS

CENTRAL WEST MACHINERY CO.

MACHINES, SHEET METAL WORKING, BENDERS

WHITNEY METAL TOOL CO.

MACHINES, SHEET METAL WORKING, BRAKES, HAND

DREIS & KRUMP MFG. CO.
HALLMOR INC.
NIAGARA MACHINE & TOOL WORKS
WHITNEY METAL TOOL CO.

MACHINES, SHEET METAL WORKING, BRAKES, PORTABLE

DREIS & KRUMP MFG. CO.
HALLMOR INC.

MACHINES, SHEET METAL WORKING, BRAKES, POWER

DREIS & KRUMP MFG. CO.
NIAGARA MACHINE & TOOL WORKS

MACHINES, SHEET METAL WORKING, BRAKES, PRESS (AND DIES)

DREIS & KRUMP MFG. CO.

MACHINES, SHEET METAL WORKING, CLEAT BENDING

LOCKFORMER CO.
SMITH, R. E.

MACHINES, SHEET METAL WORKING, FLANGING

LOCKFORMER CO.
SMITH, R. E.

MACHINES, SHEET METAL WORKING, GROOVING

NIAGARA MACHINE & TOOL WORKS

MACHINES, SHEET METAL WORKING, LOCK FORMING, POWER

LOCKFORMER CO.

MACHINES, SHEET METAL WORKING, NOTCHING

FALLSINGTON MFG. CO.
HARPER METAL PRODUCTS, LTD.
NIAGARA MACHINE & TOOL WORKS

MACHINES, SHEET METAL WORKING, PITTSBURGH LOCK FORMING

LOCKFORMER CO.

MACHINES, SHEET METAL WORKING, PITTSBURGH LOCK OPENING

BIRKS MFG. CO.

MACHINES, SHEET METAL WORKING, PRESSES & DIES

FALLSINGTON MFG. CO.

MACHINES, SHEET METAL WORKING, PUNCHES

FALLSINGTON MFG. CO.

NIAGARA MACHINE & TOOL WORKS
WHITNEY METAL TOOL CO.

MACHINES, SHEET METAL WORKING, ROLL FORMING

FALLSINGTON MFG. CO.
LOCKFORMER CO.
NIAGARA MACHINE & TOOL WORKS

MACHINES, SHEET METAL WORKING, SAWS, BAND, SHEET METAL CUTTING

BETT-MARR MFG. CO.

MACHINES, SHEET METAL WORKING, SEAMING

BRUCKER, INC., M.
LOCKFORMER CO.

MACHINES, SHEET METAL WORKING, SHEARS

CINCINNATI SHAPER CO.
MARSHALLTOWN MFG. CO.
MERCHANDISING & MFG. ASSOCIATES, INC.
NIAGARA MACHINE & TOOL WORKS
PECK, STOW & WILCOX CO.
WHITNEY MFG. CO., W. A.
WHITNEY METAL TOOL CO.
WYSONG & MILES CO.

MACHINES, SHEET METAL WORKING, SLIP ROLL FORMING

BEVERLY SHEAR MFG. CO., THE
NIAGARA MACHINE & TOOL WORKS
SAN ANGELO FOUNDRY & MACHINE CO.

MACHINES, SHEET METAL WORKING, SLITTING

BEVERLY SHEAR MFG. CO., THE
LOCKFORMER CO.

METALS, PERFORATED, SHEET AND PLATE

DIAMOND MFG. CO.

MOTORS, ELECTRIC

CENTURY ELECTRIC CO.
PEERLESS ELECTRIC CO.

MOULDING AND TRIM, ORNAMENTAL

LEVOW, DAVID

NAILS, HARDENED MASONRY

PARKER-KALON DIV., GENERAL
AMERICAN TRANSPORTATION CORP.

NAILS, ROOFING

HUSSEY & CO., C. G.

NAILS, SCREW HARDENED

PARKER-KALON DIV., GENERAL
AMERICAN TRANSPORTATION CORP.

PAINT, SHEET METAL

THOMPSON & CO.

PAPER, ASBESTOS

WILSON, INC., GRANT

PARTS, REPAIR, FURNACE AND STOVE

ADAMS CO., THE
BRAUER SUPPLY CO., A. G.
LIVINGSTON, INC.

For the page on which you will find the advertising of manufacturers in this issue, see the index to Advertisers on the last page of this yellow Directory Section

PIPE AND FITTINGS, CONDUCTOR

AJAX FURNACE FITTING CO., DIV. CINCINNATI SHEET METAL & ROOFING CO.
CHAR-GALE MFG. CO.
CHASE BRASS & COPPER CO., INC.
CINCINNATI ELBOW CO.
DIECKMANN CO., FERDINAND
HUSSEY & CO., C. G.
INLAND STEEL PRODUCTS CO.
LACROSSE STEEL ROOFING & CORRUGATING CO.
OBDYKE, INC., BENJAMIN P.
THOR METAL PRODUCTS CO., INC.

PIPE AND FITTINGS, FURNACE

ADELTA MFG. CO.
CHAMPION FURNACE PIPE CO.
CHAR-GALE MFG. CO.
COLE-SEWELL ENGINEERING CO.
EXCELSIOR STEEL FURNACE CO.
HENRY FURNACE CO.
JETTRONAIR, INC.
JUNIPER ELBOW CO., INC.
MEYER & BRO. CO., F.
OHIO VALLEY HARDWARE CO., INC.
SUPERIOR METAL FABRICATING CO.
THOR METAL PRODUCTS CO., INC.

PLATES, METAL

UNITED STATES STEEL SUPPLY CO.

PULLEYS, FAN AND MOTOR

ZATKO METAL PRODUCTS CO.

PUMPS, FUEL, OIL BURNER

SUNDSTRAND MACHINE TOOL CO., HYDRAULIC DIV.

PUMPS, RECIRCULATING, EVAPORATIVE COOLER

BECKETT & CO., THOMAS

PUNCHES

DURO-DYNE CORP.
REINER & CAMPBELL CO., INC.
THOR TOOL & DIE CO.
WHITNEY MFG. CO., W. A.
WHITNEY METAL TOOL CO.

REGISTERS AND GRILLES, HEATING, VENTILATING AND AIR CONDITIONING

AIR CONTROL PRODUCTS, INC.
AUER REGISTER CO.
BARBER-COLMAN CO.
CHAR-GALE MFG. CO.
HART & COOLEY MFG. CO.
INDEPENDENT REGISTER CO.
LIMA REGISTER CO.
STANDARD STAMPING & PERFORATING CO.
STEWART MFG. CO.
TITUS, INC.
TUTTLE & BAILEY, INC.
UNITED STATES REGISTER CO.

REGULATORS, DUCT DAMPER SETS

DURO-DYNE CORP.
GERETT CORP., M. A.
THERMAL AGENCY

REMOVERS, SOOT

GENERAL FILTERS, INC.
MILLER PRODUCT CO.

RIDGE ROLL, SHEET METAL

HUSSEY & CO., C. G.

SCREWS, SHEET METAL

NATIONAL LOCK CO.

SHEETS, METAL, ALUMINUM

CHAR-GALE MFG. CO.
UNITED STATES STEEL SUPPLY CO.

SHEETS, METAL, COPPER

AMERICAN BRASS CO.
HUSSEY & CO., C. G.
REVERE COPPER AND BRASS, INC.

SHEETS, METAL, SPECIAL METALS

UNITED STATES STEEL SUPPLY CO.

SHEETS, METAL, STEEL, COPPER BEARING, GALVANIZED

CONTINENTAL STEEL CORP.

SHEETS, METAL, STEEL, GALVANIZED

BETHLEHEM STEEL CO.
CHAR-GALE MFG. CO.
CONTINENTAL STEEL CORP.
RYERSON & SON, INC., JOSEPH T.
UNITED STATES STEEL CORP.
UNITED STATES STEEL SUPPLY CO.
WEIRTON STEEL CO.
WHEELING CORRUGATING CO.

SHEETS, METAL, STEEL GALVANNEALED

CONTINENTAL STEEL CORP.

SHEETS, METAL, STEEL, STAINLESS

ARMCO STEEL CORP.
CRUCIBLE STEEL CO.
RYERSON & SON, INC., JOSEPH T.
UNITED STATES STEEL SUPPLY CO.
WASHINGTON STEEL CORP.

SKYLIGHTS

WILLIS STEEL CORP.

SOLDER, ALUMINUM

ALLEN CO., INC., L. B.

STAMPINGS, METAL

MILLER & DOING

STOKERS

STEWART-WARNER CORP., U. S. MACHINE DIV.

SYSTEMS, HEATING, SMALL PIPE

BERGER FURNACE CORP.
CHAR-GALE MFG. CO.
HENRY FURNACE CO.
INTERNATIONAL HEATER CO.
JETTRONAIR, INC.
WILLIAMSON HEATER CO.

TANKS, FUEL OIL, ACCESSORIES

MORSE-SMITH-MORSE CO., THE

TOOLS, ROOFERS'

FREY & CO., FRANK P.

TOOLS, SHEET METAL WORKERS'

CRESCENT TOOL CO. (Pliers)
DURO-DYNE CORP. (File and solder iron handles)
JOHNSON LADDER SHOE CO. (Rubber ladder shoes)
LEVOW, DAVID (Hand clamp)
MALCO PRODUCTS (Crimpers, awls, saw blades)
MERCHANDISING AND MFG. ASSOCIATES, INC.
(Shrinker-stretchers, hole punches, notchers, straight edges, metal cutting saws)

For the page on which you will find the advertising of manufacturers in this issue, see the Index to Advertisers on the last page of this yellow Directory Section

OWENS CO., H. (Pattern developer)
 REINER & CAMPBELL CO., INC. (Dividers and notchers)
 SCHAEFER BRUSH MFG. CO. (Steel brushes)
 WHITNEY MFG. CO., W. A. (Tinner's hammer)

TORCHES, SOLDERING AND WELDING

REINER & CAMPBELL CO., INC.
 RELIABLE GAS PRODUCTS CO.

TRUCKS, MOTOR

CHEVROLET MOTOR DIV., GENERAL MOTORS CORP.

TUBING, COPPER

HUSSEY & CO., C.G.

TUBING, METAL, FERROUS

UNITED STATES STEEL SUPPLY CO.

UNITS, AIR CONDITIONING, CENTRAL PLANT, RESIDENTIAL, SUMMER ONLY

BARKOW MFG. CO., INC., AUG. G.
 CARRIER CORP.
 CENTURY ENGINEERING CORP.
 FRIGIDAIRE DIV., GENERAL MOTORS CORP.
 GENERAL ELECTRIC CO., AIR CONDITIONING DIV.
 HEIL CO.
 HENRY FURNACE CO.
 INGERSOLL CONDITIONED AIR DIV., BORG-WARNER CORP.
 INTERNATIONAL HEATER CO.
 JETTRONAIRE, INC.
 LENNOX FURNACE CO.
 MAJESTIC CO., INC.
 MUELLER CLIMATROL
 OLSEN MFG. CO., THE C. A.
 PEERLESS FURNACE AND FOUNDRY CO.
 PRIMOR PRODUCTS, INC.
 SEQUOIA MFG. CO.
 SHANA MFG., INC.
 STERLING AIR CONDITIONING CORP.
 STEWART-WARNER CORP., U. S. MACHINE DIV.
 UNION ASBESTOS & RUBBER CO.
 WILLIAMSON HEATER CO.
 WORTHINGTON CORP.

UNITS, AIR CONDITIONING, CENTRAL PLANT, RESIDENTIAL, SUMMER-WINTER

AIRTEMP DIV., CHRYSLER CORP.
 CARRIER CORP.
 GENERAL ELECTRIC CO., AIR CONDITIONING DIV.
 HENRY FURNACE CO.
 LENNOX FURNACE CO.
 MAJESTIC CO., INC.
 MUELLER CLIMATROL
 PATTEN CO., J. V.
 OLSEN MFG. CO., THE C. A.
 PEERLESS FURNACE AND FOUNDRY CO.
 SEQUOIA MFG. CO.
 SHANA MFG., INC.
 SMITH CORP., A. O., PERMAGLAS DIV.
 UNITED STATES AIR CONDITIONING CORP.
 WILLIAMSON HEATER CO.
 WORTHINGTON CORP.

UNITS, AIR CONDITIONING, EVAPORATIVE TYPE

ALTON MFG. CO.
 COMFORT PRODUCTS CORP.
 DRY & SONS, J. R.

UNITS, AIR CONDITIONING, HORIZONTAL, SUMMER ONLY

LENNOX FURNACE CO.
 PRIMOR PRODUCTS, INC.
 SHANA MFG., INC.
 WILLIAMSON HEATER CO.

UNITS, AIR CONDITIONING, ROOM TYPE, SUMMER ONLY, FOR REMOTE INSTALLATIONS

CARRIER CORP.
 SHANA MFG., INC.

UNITS, AIR CONDITIONING, ROOM TYPE, SUMMER ONLY, SELF-CONTAINED

BARKOW MFG. CO., INC., AUG. G.
 CARRIER CORP.
 SHANA MFG., INC.
 WORTHINGTON CORP.

UNITS, AIR CONDITIONING, ROOM TYPE, WINDOW

CARRIER CORP.

UNITS, AIR CONDITIONING, STORE TYPE

BARKOW MFG. CO., INC., AUG. G.
 UNION ASBESTOS & RUBBER CO.
 UNITED STATES AIR CONDITIONING CORP.
 WILLIAMSON HEATER CO.
 WORTHINGTON CORP.

UNITS, AIR CONDITIONING, SUSPENDED CABINET, SUMMER ONLY

UNION ASBESTOS & RUBBER CO.

VALVES, GAS, AUTOMATIC SHUT OFF

MILWAUKEE GAS SPECIALTY CO.

VALVES, GAS, MOTORIZED

MILWAUKEE GAS SPECIALTY CO.

VALVES, GAS, SAFETY PILOT

MILWAUKEE GAS SPECIALTY CO.

VALVES, HUMIDIFIER, WATER LEVEL

BECKETT & CO., THOMAS
 MOREY, DAN

VALVES, SOLENOID

CRISE CONTROLS DIV., ACRO MFG. CO.
 DETROIT CONTROLS CORP.
 MILWAUKEE GAS SPECIALTY CO.
 PENN CONTROLS, INC.
 PERFEX CORP.

VANES, DUCT TURNING

DURO-DYNE CORP.

VENTILATORS, ROOF

ACCURATE SHEET METAL & MFG. WORKS
 ALLEN VENTILATOR DIV., PRODUCTION PLANNING CO.
 EMPIRE VENTILATION EQUIPMENT CO.
 SWARTWOUT CO.

WASHERS, AIR, HEATING AND VENTILATING

CLARAGE FAN CO.
 COMFORT PRODUCTS CORP.

WELDERS, SPOT

DURO-DYNE CORP.

WHEELS, BLOWER

MORRISON PRODUCTS, INC.

WHOLESALE, HEATING EQUIPMENT

BRAUER SUPPLY CO., A. G.
 FAMOUS FURNACE CO.
 UNITED STATES STEEL SUPPLY CO.

For the page on which you will find the advertising of manufacturers in this issue, see the Index to Advertisers on the last page of this yellow Directory Section

Section of

American Artisan

1955 DIRECTORY OF WARM AIR HEATING, RESIDENTIAL AIR CONDITIONING AND SHEET METAL PRODUCTS

[Part 2 — ALL PRODUCTS CLASSIFIED]

ABSORBERS, SOUND

Industrial Sound Control, Inc., Hartford, Conn.

ADHESIVES, BONDING

Rubber and Asbestos Corp., Bloomfield, N. J.

ADHESIVES, INSULATION

Adhesives & Coatings Div., Minnesota Mining & Mfg. Co.,
Detroit, Mich.

Miracle Adhesives Corp., New York, N. Y.

Paisley Products, Inc., New York, N. Y.

ADSORBERS, ODOR

Abbeon Supply Co., Jamaica, N. Y.

Barnebey-Cheney Co., Pur Air Div., Columbus, O.

Carbide & Carbon Chemicals Co., Div. Union Carbide & Carbon
Corp., New York, N. Y.

Chemurgic Process Corp., New York, N. Y.

Connor Engineering Corp., Danbury, Conn.

Manning Co., Charles E., Pittsburgh, Pa.

AIR CONDITIONING UNITS

See Units, Air Conditioning

AIR DIFFUSERS

See Diffusers, Air

AIR FILTERS

See Filters, Air

AIR FRESHENING COMPOUNDS

See Compounds, Air Freshening

AIR METERS

See Meters, Air; Anemometers

AIR, PURIFICATION

See Adsorbers, Odor

AIR STERILIZERS

See Sterilizers, Air

AIR WASHERS

See Washers, Air

ALUMINUM COATED SHEETS

See Sheets, Metal, Steel, Aluminum Coated

ALUMINUM PIPE

See Tubing, Aluminum

ALUMINUM SHEETS

See Sheets, Metal, Aluminum

ANALYZERS, CO₂, PORTABLE

Bacharach Industrial Instrument Co., Pittsburgh, Pa.

Defender Instrument & Regulator Co., St. Louis, Mo.

Dwyer Mfg. Co., F. W., Chicago, Ill.

Ellison Draft Gage Co., Chicago, Ill.

Engelhard, Inc., Chas., East Newark, N. J.

General Scientific Equipment Co., Philadelphia, Pa.

Hays Corp., Michigan City, Ind.

Permutit Co., New York, N. Y.

Preferred Utilities Mfg. Corp., New York, N. Y.

Uehling Instrument Co., Paterson, N. J.

Victory Engineering Corp., Union, N. J.

ANCHORS, DUCT AND PIPE

Southern Mist Products Co., Evanston, Ill.

ANEMOMETERS

Bacharach Industrial Instrument Co., Pittsburgh, Pa.

Detroit Air Conditioning Service Co., Detroit, Mich.

Friez Instrument Div., Bendix Aviation Corp., Baltimore, Md.

Hastings Instrument Co., Inc., Hampton, Va.

Hill & Co., E. Vernon, Lake Geneva, Wis.

Illinois Testing Laboratories, Inc., Chicago, Ill. (Thermo-electri-
cal)

Taylor Instrument Companies, Rochester, N. Y.

Willson Products, Inc., Reading, Pa.

ANGLES, ANGLE RINGS, BARS, BEAMS, CHANNELS AND TEES

Arme Steel Co., Chicago, Ill.

Allegheny Ludlum Steel Corp., Pittsburgh, Pa.

Aluminum Co. of America, Pittsburgh, Pa.

American Brass Co., Waterbury, Conn.

Bethlehem Steel Co., Bethlehem, Pa.

Byers Co., A. M., Pittsburgh, Pa.

Chase Brass & Copper Co., Inc., Waterbury, Conn.

Chicago Metal Mfg. Co., Chicago, Ill.

Columbia-Geneva Steel Div., U. S. Steel Corp., San Francisco,
Calif.

Dahlstrom Metallic Door Co., Jamestown, N. Y.

Dow Chemical Co., Midland, Mich.

Harvey Machine Co., Inc., Torrance, Calif.

Inland Steel Co., Chicago, Ill.

Inland Steel Products Co., Milwaukee, Wis.

International Steel Co., Evansville, Ind.

Jones & Laughlin Steel Corp., Pittsburgh, Pa.

Laclede Steel Co., St. Louis, Mo.

National Metal Fabricators, Chicago, Ill.

Penn Metal Co., Inc., New York, N. Y.

Republic Steel Corp., Cleveland, Ohio.

Revere Copper & Brass Inc., New York, N. Y.

Reynolds Metals Co., Louisville, Ky.

Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala.

Truscon Steel Div., Republic Steel Corp., Youngstown, Ohio.

United States Steel Corp., Pittsburgh, Pa.

Youngstown Sheet & Tube Co., Youngstown, Ohio.

ARC WELDERS

See Welders, Arc

ARC WELDING ELECTRODES

See Rods, Welding

ASBESTOS BOARD

See Sheets, Non-Metallic

ASBESTOS PAPER

See Paper, Asbestos

ATTIC FANS

See Fans, Night Air Cooling

AUTOMATIC HUMIDIFIERS

See Humidifiers, Furnace

AWNINGS, SHEET METAL

Air Control Products, Inc., Coopersville, Mich.

Alumatic Corp. of America, Milwaukee, Wis.

Cramer Mfg. Co., Canton, O.

Kawneer Co., Niles, Mich.
KoolVent Metal Awning Corp. of America, Pittsburgh, Pa.
Martin Stamping & Stove Co., Huntsville, Ala.
Russell Co., F. C., Cleveland, Ohio.
Wagner Awning & Mfg. Co., Cleveland, Ohio.

BAFFLES, COMBUSTION CHAMBER

Amerform Corp., Philadelphia, Pa.
Barclay, Inc., Robt., Chicago, Ill.
Boston Machine Works Co., Lynn, Mass.
Chicago Fire Brick Co., Chicago, Ill.
Coogan Co., Inc., Frank J., Pittsburgh, Pa.
Harvey, Inc., Sid, Valley Stream, N. Y.
Insulating Castable Corp., River Rouge, Mich.
Insulation & Refractories Co., Williamson, N. Y.
Iron-Hide Sales Co., Matawan, N. J.
Laclede-Christy Co., St. Louis, Mo.
Oil Equipment Mfg. Co., New Haven, Conn.
Peterson Co., B. A., Dowagiac, Mich.
Quigley Co., Inc., New York, N. Y.
Refractory & Insulation Corp., New York, N. Y.
Robinson Insulation Co., Great Falls, Mont.
S. O. S. Products Co., Inc., Brooklyn, N. Y.
Stark & Co., H. W., Ann Arbor, Mich.
Walsh Refractories Corp., St. Louis, Mo.
Zeh Co., Inc., Passaic, N. J.

BAGS, DUST RECOVERY

Day Co., Minneapolis, Minn.
Master-Craft Supply Co., Inc., Haverstraw, N. Y.
Raybestos-Manhattan, Inc., Manheim, Pa.
Wagner Awning & Mfg. Co., Cleveland, Ohio.

BALANCING EQUIPMENT, FAN

Bear Mfg. Co., Rock Island, Ill.
Gisholt Machine Co., Madison, Wis.
Sundstrand Machine Tool Co., Rockford, Ill.

BAND SAWS

See Machines, Saws, Band

BAR FOLDERS

See Machines, Bar Folding

BAROMETRIC DRAFT DAMPERS

See Dampers, Draft, Barometric; Draft Diverters

BARS

See Angles, Bars, Beams, Channels, and Tees

BASE BOARD REGISTERS

See Diffusers, Air, Baseboard

BASES AND PADS, VIBRATION ISOLATING

Alexander Brothers Belting Co., Philadelphia, Pa.
Barry Corp., Watertown, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Celotex Corp., Chicago, Ill.
Clarage Fan Co., Kalamazoo, Mich.
Cork Insulation Co., Inc., New York, N. Y.
Division Lead Co., Chicago, Ill.
Felters Co., Inc., Boston, Mass.
Firestone Industries Products Co., Akron, O.
Glass Fibers Inc., Toledo, O.
Goodrich Co., B. F., Akron, Ohio.
Hobbs Products Co., Inc., Harrison, N. J.
Johns-Manville, New York, N. Y.
Korfund Co., Inc., Long Island City, N. Y.
Lord Mfg. Co., Erie, Pa.
MB Mfg. Co., Inc., New Haven, Conn.
Mundet Cork Corp., Brooklyn, N. Y.
National Cork Co., Englewood, N. J.
National Lead Co., New York, N. Y.
New York Belting & Packing Co., Passaic, N. J.
Raybestos-Manhattan, Inc., Passaic, N. J.
Robinson Aviation, Inc., Teterboro, N. J.
Sponge Rubber Products Co., Shelton, Conn.
United Cork Cos., Kearny, N. J.
United States Rubber Co., New York, N. Y.
Vibration Eliminator Co., Long Island City, N. Y.
Wagner Awning & Mfg. Co., Cleveland, Ohio.
Western Felt Works, Chicago, Ill.

BATHS, TINNING

Division Lead Co., Summit, Ill.
Eclipse Fuel Engineering Co., Rockford, Ill.
Farrelloy Co., Philadelphia, Pa.

BEADERS

See Machines, Beading

BEAMS

See Angles, Bars, Beams, Channels, and Tees

BEARINGS, PILLOW BLOCK

Ahlberg Bearing Co., Chicago, Ill.
Air Controls, Inc., Cleveland, Ohio.
Anti-Friction Bearings Co., Los Angeles, Calif.
Chain Belt Co., Milwaukee, Wis.
Chicago Die Casting Co., Chicago, Ill.
Congress Drives Div., Tann Corp., Detroit, Mich.
Dick Co., Inc., R. & J., Passaic, N. J.
Dodge Mfg. Corp., Mishawaka, Ind.
Fafair Bearing Co., The, New Britain, Conn.
Freed Products Co., Moline, Ill.
Goldens' Foundry & Machine Co., Columbus, Ga.
Jones Foundry & Machine Co., W. A., Chicago, Ill.
Lau Blower Co., Dayton, Ohio.
Link-Belt Co., Chicago, Ill.
Norma-Hoffmann Bearing Corp., Stamford, Conn.
Plymouth Industries, Inc., Plymouth, Ind.
Randall Graphite Bearings, Inc., Chicago, Ill.
Roversford Foundry & Machine Co., Roversford, Pa.
Seco-Lite Mfg. Co., St. Louis, Mo.
Shafer Bearing Div., Chain Belt Co., Downers Grove, Ill.
SKF Industries, Inc., Philadelphia, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Triangle Mfg. Co., Oshkosh, Wis.
Vernco Corp., Columbus, Ind.
Whiteley Bearing Corp., Chicago, Ill.
Wood's Sons Co., T. B., Chambersburg, Pa.

BELTS, V

Allis-Chalmers Mfg. Co., Milwaukee, Wis.
American Pulley Co., Philadelphia, Pa.
Browning Mfg. Co., Inc., Maysville, Ky.
Chicago Belting Co., Chicago, Ill.
Congress Drives Div., Tann Corp., Detroit, Mich.
Dayton Rubber Co., Dayton, Ohio.
Dick Co., Inc., R. & J., Passaic, N. J.
Dodge Mfg. Corp., Mishawaka, Ind.
Firestone Industrial Products Co., Akron, O.
Gates Rubber Co., Denver, Colo.
Goodrich Co., B. F., Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Jones Foundry & Machine Co., W. A., Chicago, Ill.
Lovejoy Flexible Coupling Co., Chicago, Ill.
Manheim Mfg. & Belting Co., Manheim, Pa.
Maurey Mfg. Corp., Chicago, Ill.
New York Belting & Packing Co., Passaic, N. J.
Pyott Foundry & Machine Co., Chicago, Ill.
Raybestos-Manhattan, Inc., Passaic, N. J.
Republic Rubber Div., Lee Rubber & Tire Corp., Youngstown, Ohio.
Thermoid Co., Trenton, N. J.
United States Rubber Co., New York, N. Y.
Wood's Sons Co., T. B., Chambersburg, Pa.
Worthington Corp., Harrison, N. J.

BENDERS, (ANGLE, ETC.)

See Machines, Benders

BLADES, PROPELLER FAN

Ackermann Mfg. Co., Wheeling, W. Va.
Aerovent Fan Co., Piqua, Ohio.
Air Controls, Inc., Cleveland, Ohio.
Airmaster Corp., Chicago, Ill.
American Coolair Corp., Jacksonville, Fla.
Beckett & Co., Thomas, Dallas, Texas.
Bern's Mfg. Co., Chicago, Ill.
Brookside Products Co., Inc., McCordsville, Ind.
Burden Co., Alan E., Los Angeles, Calif.
C & H Air Conditioning Fan Co., Inc., Atlanta, Ga.
Champion Blower & Forge Co., Lancaster, Pa.
Chelsea Fan & Blower Co., Inc., Irvington, N. J.
Chicago Blower Corp., Franklin Park, Ill.
Dallas Engineering Co., Inc., Dallas, Texas.
Dana Fan & Blower Corp., Cincinnati, Ohio.
Dayton Rubber Co., Dayton, O.
Dual-Air Fan Co., Hampshire, Ill.
Dynamic Air Engineering, Inc., Los Angeles, Calif.
Electrovent Fan & Mfg. Co., Chicago, Ill.
International Engineering, Inc., Dayton, Ohio.
Kloppenborg Aluminum Foundry, Davenport, Iowa.
Lakewood Engineering & Mfg. Co., Chicago, Ill.
Martin Fan & Blower Co., Chicago, Ill.

Meier Electric & Machine Co., Indianapolis, Ind.
 Myers Electric Co., Pittsburgh, Pa.
 National Gas Equipment Co., Inc., Terrell, Texas.
 Revcor, Carpentersville, Ill.
 Peerless Electric Co., Warren, Ohio.
 Schwitzer-Cummins Co., Indianapolis, Ind.
 South Bend Air Products, Inc., South Bend, Ind.
 Skinner Heating & Ventilating Co., Inc., St. Louis, Mo.
 Standard Electric Mfg. Co., Inc., West Berlin, N. J.
 Thermal Industries, Indio, Calif.
 Torrington Mfg. Co., Torrington, Conn.
 Vernco Corp., Columbus, Ind.
 Wind-Way Fan & Ventilator Co., New Orleans, La.

BLAST GATES

See Gates, Blast

BLOW PIPE COLLECTORS

See Collectors, Blow Pipe

BLOW PIPE EQUIPMENT

See Gates, Blast; Collectors, Blow Pipe

BLOWER CONTROLS

See Controls, Blower, Speed Changing

BLOWER-FILTER UNITS, WARM AIR FURNACE

Filter and fan only

Advance Furnace Co., Wichita, Kans.
 Air Conditioning Equipment Co., Minneapolis, Minn.
 Air Controls, Inc., Cleveland, Ohio.
 Airwasher Corp., Eaton Rapids, Mich.
 Aladdin Heating Corp., San Leandro, Calif.
 American Foundry & Furnace Co., Bloomington, Ill.
 American Furnace Co., St. Louis, Mo.
 Auburn Burner Co., Auburn, Ind.
 Bard Mfg. Co., Bryan, Ohio.
 Bovee Furnace Works, Waterloo, Iowa.
 Brundage Co., Kalamazoo, Mich.
 Bryant Heater Div. Affiliated Gas Equipment, Inc., Cleveland, Ohio.
 Campbell Heating Co., Des Moines, Iowa.
 Dana Fan & Blower Corp., Cincinnati, Ohio.
 Delta Heating Corp., Trenton, N. J.
 Dowagiac Steel Furnace Co., Dowagiac, Mich.
 Firewel Co., Inc., Buffalo, N. Y.
 Forest City Foundries Co., Niagara Furnace Div., Cleveland, Ohio.
 Front Rank Furnace Co., Div. Liberty Foundry Co., St. Louis, Mo.
 Furblo Co., Hermansville, Mich.
 Green Colonial Furnace Co., Des Moines, Iowa.
 Hall-Neal Furnace Co., Indianapolis, Ind.
 Hastings Air Conditioning Co., Hastings, Nebr.
 Heating Assurance, Inc., Spokane, Wash.
 Henry Furnace Co., Medina, Ohio.
 International Heater Co., Utica, N. Y.
 International Oil Burner Co., St. Louis, Mo.
 International Sales Co., San Francisco, Calif.
 Jackson & Church Co., Saginaw, Mich.
 Lau Blower Co., Dayton, Ohio.
 Lennox Furnace Co., Marshalltown, Iowa.
 Made-Rite Co., Inc., Newport, Ky.
 MaGirl Foundry & Furnace Co., Bloomington, Ill.
 Majestic Co., Inc., Huntington, Ind.
 Marshall Furnace Co., Marshall, Mich.
 Martin Fan & Blower Co., Chicago, Ill.
 Mayflower Air Conditioners, Inc., St. Paul, Minn.
 Meyer Furnace Co., Peoria, Ill.
 Montag Stove & Furnace Works, Portland, Ore.
 Mueller Climatrol, Milwaukee, Wis.
 Northwest Foundry & Furnace Co., Portland, Ore.
 Olsen Mfg. Co., C. A., Elyria, Ohio.
 Peerless Electric Co., Warren, Ohio.
 Peerless Furnace and Foundry Co., Indianapolis, Ind.
 Pennsylvania Furnace & Iron Co., Warren, Pa.
 Premier Furnace Co., Dowagiac, Mich.
 Round Oak Co., Inc., Dowagiac, Mich.
 Rybolt Heater Co., Ashland, Ohio.
 St. Louis Furnace Mfg. Co., St. Louis, Mo.
 Sandberg Mfg. Co., Portland, Ore.
 Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
 Thermo-Products, Inc., North Judson, Ind.
 Turb-O-Tube Furnace, Inc., Buffalo, N. Y.
 Viking Air Conditioning Div., National Radiator Co., Cleveland, O.

Waterman-Waterbury Co., Minneapolis, Minn.
 Western Blower Co., Seattle, Wash.
 Williamson Heater Co., Cincinnati, Ohio.
 Zick Sheet Metal Works, Dearborn, Mich.

BLOWER-FILTER UNITS, WARM AIR FURNACE

Equipped with humidifier and/or germicidal apparatus
 National Air Conditioning Inc., Johnstown, Pa.

BLOWER HOUSINGS

See Housings, Blower and Fan

BLOWER-WASHER UNITS, WARM AIR FURNACE

Air Stream Filter Corp., St. Louis, Mo.
 Airwasher Corp., Eaton Rapids, Mich.
 Bishop & Babcock Mfg. Co., Cleveland, Ohio.
 Furblo Co., Hermansville, Mich.

BLOWER WHEELS

See Wheels, Blower

BLOWERS, DUCT, CENTRIFUGAL

Viking Air Conditioning Div., The National Radiator Co., Cleveland, O.

BLOWERS, EXHAUSTERS

Aladdin Heating Corp., San Leandro, Calif.
 Ammerman Co., C. L., Minneapolis, Minn.
 Babbins, Inc., New York, N. Y.
 Bayley Blower Co., Milwaukee, Wis.
 Billmyre Blower Div., Lamson Corp., Syracuse, N. Y.
 Brookside Products Co., Inc., McCordsville, Ind.
 Brundage Co., Kalamazoo, Mich.
 Buffalo Forge Co., N. Y.
 Carolina Blower Co., Inc., Greensboro, N.C.
 Century Fan & Ventilator Co., Stamford, Conn.
 Champion Blower & Forge Co., Lancaster, Pa.
 Chelsea Fan & Blower Co., Inc., Plainfield, N.J.
 Chicago Blower Corp., Franklin Park, Ill.
 Clarage Fan Co., Kalamazoo, Mich.
 Cook Co., Loren, Berea, O.
 Day Co., Minneapolis, Minn.
 Electrovent Fan & Mfg. Co., Chicago, Ill.
 Filkins, Inc., Edward, Chicago, Ill.
 Frigid, Inc., Brooklyn, N. Y.
 Garden City Fan Co., Chicago, Ill.
 General Blower Co., Morton Grove, Ill.
 Ilg Electric Ventilating Co., Chicago, Ill.
 Industrial Plastic Fabricators, Inc., Norwood, Mass.
 Martin Fan & Blower Co., Chicago, Ill.
 Nelson Products, Herman, American Air Filter Co., Inc., Louisville, Ky.
 Northern Blower Co., Cleveland, Ohio.
 Peerless Electric Co., Warren, O.
 Phelps Mfg. Co., Little Rock, Ark.
 Power Engineering Co., Chicago, Ill.
 Puhl & Hepper Mfg. Co., Inc., St. Louis, Mo.
 Redmond Distributors, Inc., Newark, N. J.
 Rees Blow Pipe Mfg. Co., Berkeley, Calif.
 Skinner Htg. & Vent. Co., St. Louis, Mo.
 United States Air Conditioning Corp., Minneapolis, Minn.
 Utility Fan Corp., Div. of Utility Appliance Corp., Los Angeles, Calif.
 Woolley Engineering Co., Detroit, Mich.

BLOWERS, FORCED DRAFT, ASH PIT

Aladdin Heating Corp., San Leandro, Calif.
 American Blower Corp., Detroit, Mich.
 Babbins, Inc., New York, N. Y.
 Bayley Blower Co., Milwaukee, Wis.
 Buffalo Forge Co., Buffalo, N. Y.
 Champion Blower & Forge Co., Lancaster, Pa.
 Champion Products Co., Muskegon, Mich.
 Clarage Fan Co., Kalamazoo, Mich.
 Coppus Engineering Corp., Worcester, Mass.
 Fasco Industries, Inc., Rochester, N. Y.
 Garden City Fan Co., Chicago, Ill.
 General Blower Co., Morton Grove, Ill.
 General Blower Co., Inc., Philadelphia, Pa.
 International Engineering, Inc., Dayton, Ohio.
 Joy Mfg. Co., Pittsburgh, Pa.
 Lehigh Fan & Blower Co., Allentown, Pa.
 Martin Fan & Blower Co., Chicago, Ill.
 Power Engineering Co., Chicago, Ill.
 Small Motors, Inc., Chicago, Ill.
 South Bend Air Products, Inc., South Bend, Ind.
 Standard Electric Mfg. Co., Inc., West Berlin, N. J.

Westinghouse Electric Corp., Sturtevant Div., Boston, Mass.
Wing Mfg. Co., L. J., Linden, N.J.

BLOWERS, FURNACE, CENTRIFUGAL

Air Conditioning Equipment Co., Minneapolis, Minn.
Air Controls, Inc., Cleveland, Ohio.
Airfan Engineering Co., Los Angeles, Calif.
Airwasher Corp., Eaton Rapids, Mich.
Aladdin Heating Corp., San Leandro, Calif.
American Agile Corp., Bedford, O.
American Blower Corp., Detroit, Mich.
American Foundry & Furnace Co., Bloomington, Ill.
American Furnace Co., St. Louis, Mo.
Auburn Burner Co., Auburn, Ind.
Bishop & Babcock Mfg. Co., Cleveland, Ohio.
Brookside Products Co., Inc., McCordsville, Ind.
Brundage Co., Kalamazoo, Mich.
Buffalo Forge Co., Buffalo, N. Y.
Campbell Heating Co., Des Moines, Iowa.
Century Fan & Ventilator Co., Stamford, Conn.
Champion Blower & Forge Co., Lancaster, Pa.
Chicago Blower Corp., Franklin Park, Ill.
Clarage Fan Co., Kalamazoo, Mich.
Eclipse Fuel Engineering Co., Rockford, Ill.
Freed Products Co., Moline, Ill.
Frigid, Inc., Brooklyn, N. Y.
Furblo Co., Hermansville, Mich.
General Blower Co., Morton Grove, Ill.
General Blower Co., Inc., Philadelphia, Pa.
Hall-Neal Furnace Co., Indianapolis, Ind.
Hastings Air Conditioning Co., Inc., Hastings, Nebr.
International Sales Co., San Francisco, Calif.
Lau Blower Co., Dayton, Ohio.
Lennox Furnace Co., Marshalltown, Iowa.
MaGirl Foundry & Furnace Co., Bloomington, Ill.
Majestic Co., Inc., Huntington, Ind.
Martin Fan & Blower Co., Chicago, Ill.
Mauer Engineering, Evanston, Ill.
Meyer Furnace Co., Peoria, Ill.
Montag Stove & Furnace Works, Portland, Ore.
Morrison Products, Inc., Cleveland, Ohio.
Mountain States Equipment Co., Denver, Colo.
Peerless Electric Co., Warren, Ohio.
Premier Furnace Co., Dowagiac, Mich.
Schwitzer-Cummins Co., Indianapolis, Ind.
Skinner Heating & Ventilating Co., Inc., St. Louis, Mo.
Standard Electric Mfg. Co., Inc., West Berlin, N. J.
Standard Heating Equipment Co., Waterloo, Iowa.
Trade-Wind Motorfans, Inc., Los Angeles, Calif.
United States Air Conditioning Corp., Minneapolis, Minn.
Utility Fan Corp., Div. of Utility Appliance Corp., Los Angeles, Calif.
Viking Air Conditioning Div., National Radiator Co., Cleveland, O.
Waterman-Waterbury Co., Minneapolis, Minn.
Western Blower Co., Seattle, Wash.
Westinghouse Electric Corp., Sturtevant Div., Boston, Mass.
Zick Sheet Metal Works, Dearborn, Mich.

BLOWERS, INDUCED DRAFT, SMOKE PIPE

Aladdin Heating Corp., San Leandro, Calif.
American Blower Corp., Detroit, Mich.
American Foundry & Furnace Co., Bloomington, Ill.
Ammerman Co., C. L., Minneapolis, Minn.
Autogas Co., Bellwood, Ill.
Babbin, Inc., New York, N. Y.
Bayley Blower Co., Milwaukee, Wis.
Century Fan & Ventilator Co., Stamford, Conn.
Chicago Blower Corp., Franklin Park, Ill.
DeBothezat Fans Div. American Machine & Metals, Inc., Moline, Ill.
Garden City Fan Co., Chicago, Ill.
General Blower Co., Morton Grove, Ill.
Lehigh Fan & Blower Co., Allentown, Pa.
Little Burner Co., Inc., H. C., San Rafael, Calif.
Martin Fan & Blower Co., Chicago, Ill.
Mueller Climatrol, Milwaukee, Wis.
Perfection Stove Co., Cleveland, Ohio.
Power Engineering Co., Chicago, Ill.
Small Motors, Inc., Chicago, Ill.
Therm Oil Burner Co., Seattle, Wash.
Tjernlund Mfg. Co., St. Paul, Minn.
Viking Mfg. Corp., Cleveland, Ohio.
Whitty Co., Inc., Boston, Mass.
Wing Mfg. Co., L. J., Linden, N.J.

BLOWERS, VENTILATING SYSTEM (CAPACITY 4000 CFM UP)

Aerovent Fan Co., Inc., Piqua, O.
Air Controls, Inc., Cleveland, Ohio.
Airfan Engineering Co., Los Angeles, Calif.
Aladdin Heating Corp., San Leandro, Calif.
American Foundry & Furnace Co., Bloomington, Ill.
Ammerman Co., C. L., Minneapolis, Minn.
Arex Co., Chicago, Ill.
Babbin, Inc., New York, N. Y.
Barry Blower Co., Minneapolis, Minn.
Bayley Blower Co., Milwaukee, Wis.
Berns Mfg. Co., Chicago, Ill.
Billmyre Blower Div., Lamson Corp., Syracuse, N. Y.
Bishop & Babcock Mfg. Co., Cleveland, Ohio.
Brookside Products Co., Inc., McCordsville, Ind.
Buffalo Forge Co., Buffalo, N. Y.
Campbell Heating Co., Des Moines, Iowa.
Campbell Co., E. K., Kansas City, Mo.
Century Fan & Ventilator Co., Stamford, Conn.
Champion Blower & Forge Co., Lancaster, Pa.
Chicago Blower Corp., Franklin Park, Ill.
Clarage Fan Co., Kalamazoo, Mich.
Commercialaire, Inc., Brooklyn, N. Y.
Coppus Engineering Corp., Worcester, Mass.
Day Co., Minneapolis, Minn.
DeBothezat Fans Div., American Machine & Metals, Inc., East Moline, Ill.
Electrovent Fan & Mfg. Co., Chicago, Ill.
Frigid, Inc., Brooklyn, N. Y.
Furblo Co., Hermansville, Mich.
Garden City Fan Co., Chicago, Ill.
General Blower Co., Morton Grove, Ill.
General Blower Co., Inc., Philadelphia, Pa.
Hartzell Propeller Fan Co., Div. Castle Hills Corp., Piqua, Ohio.
Hastings Air Conditioning Co., Inc., Hastings, Nebr.
Ilg Electric Ventilating Co., Chicago, Ill.
International Engineering, Inc., Dayton, Ohio.
Joy Mfg. Co., Pittsburgh, Pa.
MaGirl Foundry & Furnace Co., Bloomington, Ill.
Marlo Coil Co., St. Louis, Mo.
Martin Fan & Blower Co., Chicago, Ill.
Montag Stove & Furnace Works, Portland, Ore.
Moore Co., St. Louis, Mo.
Mountain States Equipment Co., Denver, Colo.
National Engineering & Mfg. Co., Sedalia, Mo.
Nelson Products, Herman, American Air Filter Co., Inc., Louisville, Ky.
Newcomb-Detroit Co., Detroit, Mich.
Niagara Blower Co., New York, N. Y.
Peerless Electric Co., Warren, Ohio.
Phelps Mfg. Co., Little Rock, Ark.
Power Engineering Co., Chicago, Ill.
Robinson Ventilating Co., Zelenople, Pa.
Schwitzer-Cummins Co., Indianapolis, Ind.
Skinner Heating & Vent Co., Heater Div. of St. Louis Blow Pipe & Heater Co., St. Louis, Mo.
Standard Electric Mfg. Co., Inc., West Berlin, N. J.
Trane Co., LaCrosse, Wis.
United States Air Conditioning Corp., Minneapolis, Minn.
Western Blower Co., Seattle, Wash.
Westinghouse Electric Corp., Sturtevant Div., Boston, Mass.
Wing Mfg. Co., L. J., Linden, N.J.

BLOWING MACHINES, INSULATION

Babbin, Inc., New York, N. Y.
Insulating Equipment Co., Chicago, Ill.
Molloy Machine Corp., Chicago, Ill.
Rotary Compressor Blower Co., Grove City, Pa.
Superior Mfg. Co., Inc., Alexandria, Ind.
Universal Insulating Co., Van Wert, O.

BLOW PIPE ACCESSORIES

Elbows, Flanges, Hangers, Hoods and Sweeps, Joints, Rings, Tubing

Barcafer Mfg. Co., Salina, Kans.
Carolina Blower Co., Inc., Greensboro, N. C.
Chicago Metal Mfg. Co., Chicago, Ill.
Day Co., Minneapolis, Minn.
Goethel Sheet Metal Works, Inc., Alfred, Milwaukee, Wis.
Kindt-Collins Co., Cleveland, Ohio.
Kirk & Blum Mfg. Co., Cincinnati, Ohio. (Adjustable blurring hoods).
Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
Lyman Co., H. B., Southampton, Mass.
National Metal Fabricators, Chicago, Ill.

Newcomb-Detroit Co., Detroit, Mich.
 Northern Blower Co., Cleveland, Ohio.
 Penn Supply & Metal Corp., Philadelphia, Pa.
 Puhl & Hepper Mfg. Co., Inc., St. Louis, Mo.
 Roofing & Supply Co., Chattanooga, Tenn.
 Skinner Heating & Ventilating Co., St. Louis, Mo.
 Western Blower Co., Seattle, Wash.
 Winkler & Sons, Inc., A. E., Milwaukee, Wis.
 Young & Bertke Co., Cincinnati, Ohio.

BODIES AND ACCESSORIES, TRUCK

Allegheny Body Co., Inc., Philadelphia, Pa.
 Anthony Co., Streator, Ill.
 Boyertown Auto Body Works, Inc., Boyertown, Pa.
 Herman Body Co., St. Louis, Mo.
 Holan Corp., J. H., Cleveland, O.
 Lindsay Structure, Inc., Skokie, Ill.
 McCabe Powers Auto Body Co., St. Louis, Mo.
 Morrison Steel Products, Inc., Buffalo, N. Y.
 Stahl Metal Products, Cleveland, O.

BOLTS, EXPANSION

Arro Expansion Bolt Co., Marion, O.
 Chase Brass & Copper Co., Inc., Waterbury, Conn.
 Chicago Expansion Bolt Co., Chicago, Ill.
 Diamond Expansion Bolt Co., Inc., Garwood, N. J.
 Fee & Mason Mfg. Co., Inc., Manasquan, N. J.
 Industrial Screw Co., Chicago, Ill.
 National Lead Co., New York, N. Y.
 Paine Co., Addison, Ill.
 Phillips Drill Co., Michigan City, Ind.
 Polis Mfg. Co., J. D., Chicago, Ill.
 Rawlplug Co., Inc., New York, N. Y.
 Republic Steel Corp., Cleveland, O.
 Star Expansion Bolt Co., New York, N. Y.
 U. S. Expansion Bolt Co., York, Pa.

BOLTS, TOGGLE AND ANCHOR

Arro Expansion Bolt Co., Marion, O.
 Chase Brass & Copper Co., Inc., Waterbury, Conn.
 Chicago Expansion Bolt Co., Chicago, Ill.
 Diamond Expansion Bolt Co., Inc., Garwood, N. J.
 Fee & Mason Mfg. Co., Inc., Manasquan, N. J.
 Huck Mfg. Co., Detroit, Mich.
 Industrial Screw Co., Chicago, Ill.
 Paine Co., Addison, Ill.
 Rawlplug Co., Inc., New York, N. Y.
 Republic Steel Corp., Cleveland, O.
 Star Expansion Bolt Co., New York, N. Y.
 U. S. Expansion Bolt Co., York, Pa.

BOMBS, SMOKE

Hill & Co., E. Vernon, Lake Geneva, Wis.
 Kilgore, Inc., Westerville, Ohio.
 Unexcelled Chemical Corp., New York, N. Y.

BOOSTER FANS

See Fans, Booster

BRAKES

See Machines, Brakes

BRUSHES, ACID

Allen Co., Inc., L. B., Chicago, Ill.
 Brushes & Brooms Co., New York, N. Y.
 Division Lead Co., Summit, Ill.
 Farrelloy Co., Philadelphia, Pa.
 Lukens Metal Co., Thos. F., Philadelphia, Pa.
 Milwaukee Brush Mfg. Co., Milwaukee, Wis.
 Osborn Mfg. Co., Cleveland, Ohio.
 Potomac Mfg. Co., Philadelphia, Pa.
 Schaefer Brush Mfg. Co., Milwaukee, Wis.

BRUSHES, FURNACE, FLUE

Brushes & Brooms Co., New York, N. Y.
 Harvey, Inc., Sid, Valley Stream, N. Y.
 Milwaukee Brush Mfg. Co., Milwaukee, Wis.
 Osborn Mfg. Co., Cleveland, Ohio.
 Schaefer Brush Mfg. Co., Milwaukee, Wis.
 Worcester Brush & Scraper Co., Div. Mason Worcester Co., Worcester, Mass.

BUFFERS, GRINDERS, POLISHERS, AND SANDERS, ELECTRIC

Albertson & Co., Inc., Sioux City, Iowa.
 Baldor Electric Co., St. Louis, Mo.

Black & Decker Mfg. Co., Towson, Md.
 Brown-Brockmeyer Co., Inc., Dayton, Ohio.
 Chicago Pneumatic Tool Co., New York, N. Y.
 Delta Power Tool Div., Rockwell Mfg. Co., Pittsburgh, Pa.
 DeSoto Oil Burner Corp., York, Pa.
 DoALL Co., Des Plaines, Ill.
 Excelsior Tool & Machine Co., East St. Louis, Ill.
 H & H Research Co., Detroit, Mich.
 Hammond Machinery Builders, Inc., Kalamazoo, Mich.
 Haskins Co., R. G., Chicago, Ill.
 Jefferson Machine Tool Co., Cincinnati, Ohio.
 Lee Co., K. O., Aberdeen, S. D.
 L'Hommedieu & Sons Co., Chas. F., Chicago, Ill.
 Mall Tool Co., Chicago, Ill.
 Millers Falls Co., Greenfield, Mass.
 Milwaukee Electric Tool Corp., Milwaukee, Wis.
 Portable Electric Tools, Inc., Chicago, Ill.
 Reynolds Electric Co., River Grove, Ill.
 Rotor Tool Co., Cleveland, Ohio.
 Skil Corporation, Chicago, Ill.
 Small Motors, Inc., Chicago, Ill.
 Snap-on Tools Corp., Kenosha, Wis.
 Stanley Electric Tool Div., Stanley Works, New Britain, Conn.
 Stow Mfg. Co., Binghamton, N. Y.
 Syntrol Co., Homer City, Pa.
 Thor Power Tool Co., Aurora, Ill.
 U. S. Electrical Motors, Inc., Los Angeles, Calif.
 United States Electrical Tool Div., Emerson Electric Co., St. Louis, Mo.
 Valley Electric Co., St. Louis, Mo.
 Wyzenbeek & Staff, Inc., Chicago, Ill.

BUFFERS, GRINDERS, POLISHERS, AND SANDERS, PNEUMATIC

Chicago Pneumatic Tool Co., New York, N. Y.
 Ideal Commutator Dresser Co., Sycamore, Ill.
 Keller Tool Co., Grand Haven, Mich.
 Rotor Tool Co., Cleveland, Ohio.
 Skil Corporation, Chicago, Ill.
 Sundstrand Machine Tool Co., Rockford, Ill.
 Thor Power Tool Co., Aurora, Ill.

BURNERS, CONVERSION, RESIDENTIAL, GAS

Adams Mfg. Co., Cleveland, Ohio.
 Airtemp Div., Chrysler Corp., Dayton, Ohio.
 Akeley-Steele Co., Aurora, Ill.
 American Furnace Co., St. Louis, Mo.
 American Gas Burner, Inc., Indianapolis, Ind.
 Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
 Armstrong Furnace Co., Columbus, Ohio.
 Aston Products, Inc., Hazel Park, Mich.
 Auburn Burner Co., Auburn, Ind.
 Autogas Co., Bellwood, Ill.
 Automatic Firing Corp., St. Louis, Mo.
 Banner Burner Co., Youngstown, Ohio.
 Barber Gas Burner Co., Cleveland, Ohio.
 Bard Mfg. Co., Bryan, Ohio.
 Barton Co., St. Paul, Minn.
 Beck Engineering Combustion Kompanv, St. Louis, Mo.
 Berger Furnace Corp., Belle Vernon, Pa.
 Blue-Ray Gas Burner Co., Detroit, Mich.
 Bowly Air Devices Co., Wichita, Kans.
 Bryant Heater Div. Affiliated Gas Equipment, Inc., Cleveland, Ohio.
 Budco, Inc., Detroit, Mich.
 Burdett Mfg. Co., Chicago, Ill.
 Century Engineering Corp., Cedar Rapids, Iowa.
 Ceramic Products Mfg. Co., Milwaukee, Wis.
 Certified Furnace Corp., Trenton, N. J.
 Columbia Burner Co., Toledo, Ohio.
 Conco Engineering Works, Mendota, Ill.
 Consolidated Industries, Inc., Lafayette, Ind.
 Crane Co., Chicago, Ill.
 Custom Industries Mfg., Newton Falls, O.
 Dalzen Tool & Mfg. Co., Detroit, Mich.
 Delco Appliance Div. General Motors Corp., Rochester, N. Y.
 Delta Heating Corp., Trenton, N. J.
 Denver Fire Clay Co., Denver, Colo.
 Dornback Furnace & Foundry Co., Cleveland, Ohio.
 Dunn-Rite Products, Garden City, Mich.
 Eckhart Mfg. Co., Inc., Union, N. J.
 Eclipse Fuel Engineering Co., Rockford, Ill.
 F & E Mfg. Co., Centerville, Calif.
 Favorite Stove Co., Piqua, O.
 Finn Engineers, Inc., Jerry, St. Paul, Minn.
 Firewel Co., Inc., Buffalo, N. Y.
 Floral City Heater Co., Monroe, Mich.

Fluid Heat Div., Anchor Post Products, Inc., Baltimore, Md.
 Geisel Mfg. Inc., Elyria, Ohio.
 Glasby Mfg. Co., Inc., J. P., Belleville, N. J.
 Gold Top Heating, Inc., Butte, Mont.
 Green Colonial Furnace Co., Des Moines, Ia.
 H-P Products, Louisville, Ohio.
 Handley-Brown Heater Co., Jackson, Mich.
 Hansen Gas & Electric Co., San Francisco, Calif.
 Hart & Crouse Corp., Oneida, N. Y.
 Hart Heat Div., Avery Farm Machinery Co., Peoria, Ill.
 Hastings Air Conditioning Co., Inc., Hastings, Nebr.
 Hastings Air Control, Inc., Omaha, Nebr.
 Heil Co., Milwaukee, Wis.
 Henry Furnace Co., Medina, Ohio.
 Horsman-Markin Corp., Detroit, Mich.
 Hutchinson Burner & Mfg. Co., Hutchinson, Kans.
 Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill.
 Ingersoll Products Div., Borg-Warner Corp., Kalamazoo, Mich.
 International Heater Co., Utica, N. Y.
 Iron Fireman Mfg. Co., Cleveland, Ohio.
 Jackson & Church Co., Saginaw, Mich.
 Junior Co., J. C., Kansas City, Mo.
 Ken-Joy Gas Burner Co., Milwaukee, Wis.
 Killam Gas Burner Co., Denver, Colo.
 Kindl-Aire Corp., Cleveland, Ohio.
 Kleenair Furnace Co., Portland, Ore.
 Ko-Z-Aire Products, Inc., Red Oak, Iowa
 Laharco Industries, Minneapolis, Minn.
 Lennox Furnace Co., Marshalltown, Iowa
 Liberty Combustion Corp., Syracuse, N.Y.
 Little Burner Co., Inc., H. C., San Rafael, Calif.
 Lundt, Inc., Ernest C., Little Falls, N. J.
 Magic Chef, Inc., St. Louis, Mo.
 Magic Servant Products Co., Detroit, Mich.
 Majestic Co., Inc., Huntington, Ind.
 Martin Co., Inc., J. O., San Francisco, Calif.
 Martin Stamping & Stove Co., Huntsville, Ala.
 Mayflower Air Conditioners, Inc., St. Paul, Minn.
 McDonald Mfg. Co., A. Y., Dubuque, Iowa.
 Meyer Furnace Co., Peoria, Ill.
 Mid-Continent Metal Products Co., Chicago, Ill.
 Modern Controls Corp., Centerline, Mich.
 Moncrief Furnace & Mfg. Co., Dallas, Texas.
 Morrison Steel Products, Inc., Buffalo, N. Y.
 Mueller Climatrol, Milwaukee, Wis.
 Multi-Therm Mfg. Co., Inc., Detroit, Mich.
 Muncie Burner Mfg. Co., Romulus, Mich.
 National Radiator Co., Johnstown, Pa.
 Niagara Motors Corp., Dunkirk, N. Y.
 Norge Heat Div., Borg-Warner Corp., Kalamazoo, Mich.
 Norman Products Co., Inc., Columbus, Ohio.
 Olsen Mfg. Co., The C. A., Elyria, Ohio
 Paramount Supply Co., Lincoln, Nebr.
 Peerless Furnace and Foundry Co., Indianapolis, Ind.
 Pennsylvania Furnace & Iron Co., Warren, Pa.
 Perfection Stove Co., Cleveland, Ohio.
 Petro Div., Iron Fireman Mfg. Co., Cleveland, O.
 Premier Furnace Co., Dowagiac, Mich.
 Queen Stove Works, Inc., Albert Lea, Minn.
 Quiet-Heat Mfg. Corp., Subsidiary of Emerson Radio and Phonograph Corp., Newark, N. J.
 Radiation Furnace Corp., Benton Harbor, Mich.
 Radiant Burners, Inc., Lombard, Ill.
 Rapid Heat Corp., Detroit, Mich.
 Rasch Mfg. Corp., Kansas City, Mo.
 Rayfield-Staffco Burner Co., Chicago, Ill.
 Revere Products, Inc., Detroit, Mich.
 Roberts-Gordon Appliance Corp., Buffalo, N. Y.
 Round Oak Co., Inc., Dowagiac, Mich.
 Rybolt Heater Co., Ashland, Ohio.
 Schwab Safe Co., Lafavette, Ind.
 Siemon Mfg. Co., Grandview, Kansas City, Mo.
 Smith Corp., A. O., Permaglas Div., Kankakee, Ill.
 Sonner Burner Co., Winfield, Kans.
 Souther Iron Co., E. E., St. Louis, Mo.
 Standard Fuel Engineering Co., Detroit, Mich.
 Steel Products Engineering Co., Combustioneer Div., Springfield, Ohio.
 Sterling Engineering Co., St. Louis, Mo.
 Stewart Co., W. H., Oklahoma City, Okla.
 Stewart-Warner Corp., U. S. Machine Div., Lebanon, Ind.
 Sullivan Valve & Engineering Co., Butte, Mont.
 Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
 Sunny Sue Burner Co., Syracuse, N. Y.
 Sure Comfort Furnace Co., Forest Park, Ill.
 Surface Combustion Corp., Toledo, Ohio.

Synchronous Flame, Inc., Walworth, Wis.
 Thatcher Furnace Co., Garwood, N. J.
 Therm-O-Blast Div., O'Halloran Inds., Detroit, Mich.
 Thermex Engineering Co., Chicago, Ill.
 Thermomatic Corp., Willoughby, Ohio.
 Thermo-Products, Inc., North Judson, Ind.
 Timken Silent Automatic Div., Rockwell Spring and Axle Co., Jackson, Mich.
 Toridheet Div., Cleveland Steel Products Corp., Cleveland, Ohio.
 Triad Products Corp., Chicago, Ill.
 United States Radiator Corp., Detroit, Mich.
 Vacuum Gas Burner Corp., Olean, N. Y.
 Viking Mfg. Corp., Cleveland, O.
 Ward Heater Co., Los Angeles, Calif.
 Waterman-Waterbury Co., Minneapolis, Minn.
 Wayne Home Equipment Co., Inc., Fort Wayne, Ind.
 Will-Burt Co., Orrville, Ohio.
 Williams Div., Eureka-Williams Co., Div. of Henney Motor Co., Inc., Bloomington, Ill.
 Williamson Heater Co., Cincinnati, Ohio.
 York-Shipley, Inc., York, Penn.
 Zink Co., John, Tulsa, Okla.

BURNERS, CONVERSION, RESIDENTIAL, GAS-OIL COMBINATION

Automatic Firing Corp., St. Louis, Mo.
 Hutchinson Burner & Mfg. Co., Hutchinson, Kans.
 Johnson Co., S. T., Philadelphia, Pa. & Oakland, Calif.
 Junior Co., J. C., Kansas City, Mo.
 Lundt, Inc., Ernest C., Little Falls, N. J.
 Norman Products Co., Inc., Columbus, O.
 Quiet Automatic Burner Corp., Newark, N. J.
 Rayfield-Staffco Burner Co., Chicago, Ill.
 Roberts-Gordon Appliance Corp., Buffalo, N. Y.
 Siemon Mfg. Co., Grandview, Kansas City, Mo.
 Synchronous Flame, Inc., Walworth, Wis.
 Wisconsin Oil Burner Co., Madison, Wis.

BURNERS, CONVERSION, RESIDENTIAL, OIL, GRAVITY

Benner-Nawman, Inc., Oakland, Calif.
 Beyer Metal Products Co., Rosamond, Calif.
 Boston Machine Works Co., Lynn, Mass.
 Breese Burners, Santa Fe, N. Mex.
 DeSoto Oil Burner Corp., York, Pa.
 Gilmore & Co., Jackson G., Columbus, O.
 Gilmore Burners, Inc., Cleveland, O.
 Heating Specialties Co., Baltimore, Md.
 Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill.
 Junior Co., J. C., Kansas City, Mo.
 Kleer-Kleen Mfg. Co., Hayward, Calif.
 Kresky Mfg. Co., Inc., Petaluma, Calif.
 Kresno-Stamm Co., Palisades Park, N. J.
 Little Burner Co., Inc., H. C., San Rafael, Calif.
 Mason Machine Co., Inc., York, Pa.
 Metro Metal Mfg. Co., Holt, Mich.
 Meyer Furnace Co., Peoria, Ill.
 Rayfield-Staffco Burner Co., Chicago, Ill.
 United Air Heaters, Inc., Seattle, Wash.

BURNERS, CONVERSION, RESIDENTIAL, OIL, HIGH PRESSURE

Acme Heat & Power, Inc., Brooklyn, N. Y.
 Acme Oil Burner Co., Inc., Cedar Rapids, Ia.
 Airflame, Waukegan, Ill.
 Airtemp Div., Chrysler Corp., Dayton, O.
 Aldrich Co., Wyoming, Ill.
 All-Gas Equipment Co., Milwaukee, Wis.
 Allied Federal Industries, Newark, N. J.
 American Furnace Co., St. Louis, Mo.
 American Mohawk Co., Inc., New York, N. Y.
 Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
 Armstrong Furnace Co., Columbus, O.
 Arrow Foundry Co., Freeport, Ill.
 Aston Products, Inc., Hazel Park, Mich.
 Auburn Burner Co., Auburn, Ind.
 Automatic Burner Corp., Chicago, Ill.
 Automatic Firing Corp., St. Louis, Mo.
 Barber Gas Burner Co., Cleveland, O.
 Bard Mfg. Co., Bryan, O.
 Beckett Corp., R. W., Elyria, O.
 Bethlehem Foundry & Machine Co., Bethlehem, Pa.
 Bryant Steam Corp., Peru, Ind.
 Bryant Heater Div., Affiliated Gas Equipment, Inc., Cleveland, O.
 Caloril Burner Corp., Hartford, Conn.

Carlin Co., The Wethersfield, Conn.
 Cary Mfg. Co., Waupaca, Wis.
 Century Engineering Corp., Cedar Rapids, Ia.
 Chalmers Oil Burner Co., Minneapolis, Minn.
 Conco Engineering Works, Heating Div., Mendota, Ill.
 Connecticut State Furnace Co., Bridgeport, Conn.
 Crane Co., Chicago, Ill.
 Delco Appliance Div., General Motors Corp., Rochester, N. Y.
 D'Elia Oil Burner Co., Bridgeport, Conn.
 Delta Heating Corp., Trenton, N. J.
 DeSoto Oil Burner Corp., York, Pa.
 Diesel Oil Burner Corp., Jamaica, N. Y.
 Dornback Furnace & Foundry Co., Cleveland, O.
 Dowagiac Steel Furnace Co., Dowagiac, Mich.
 East Coast Co., Boston, Mass.
 Eastern Oil & Equipment Co., Portland, Maine
 Eckhart Mfg. Co., Inc., Union, N. J.
 Eclipse Fuel Engineering Co., Rockford, Ill.
 Eddy Stoker Corp., Chicago, Ill.
 Electric Furnace-Man, Inc., Emmaus, Pa.
 Electro-Watt, Inc., Seattle, Wash.
 Electrol Burner Mfg. Co., Inc., Rutherford, N. J.
 Fairfield Oil Heating Co., Inc., Greenwich, Conn.
 Fano-Flame Oil Burner Co., Huntington Park, Calif.
 Fluid Heat Div., Anchor Post Products, Inc., Baltimore, Md.
 Forest City Foundries Co., Niagara Furnace Div., Cleveland, O.
 Fuel Savers, Inc., Harrisburg, Pa.
 General Automatic Products Corp., Baltimore, Md.
 General Oil Heating Corp., West New York, N. J.
 Gilbert & Barker Mfg. Co., West Springfield, Mass.
 Gillen Co., J. L., Detroit, Mich.
 Green Colonial Furnace Co., Des Moines, Ia.
 Hall-Neal Furnace Co., Indianapolis, Ind.
 Hart Heat Div., Avery Farm Machinery Co., Peoria, Ill.
 Harvey, Inc., Sid, Valley Stream, N. Y.
 Harvey-Whipple, Inc., Springfield, Mass.
 Heat-Seal Burner Co., Omaha, Nebr.
 Heatcraft Co., Louisville, Ky.
 Heil Co., Milwaukee, Wis.
 Henry Furnace Co., Medina, O.
 Herco Oil Burner Corp., Lancaster, Pa.
 Hershey Machine & Foundry Co., Manheim, Pa.
 HomeEase Products Div., Bogue Electric Mfg. Co., Paterson, N. J.
 Hotentot Co., Inc., Omaha, Nebr.
 Hy-Lo Burner Co., Inc., Eddington, Pa.
 Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill.
 International Heater Co., Utica, N. Y.
 International Oil Burner Co., St. Louis, Mo.
 Iron Fireman Mfg. Co., Cleveland, O.
 Jackson & Church Co., Saginaw, Mich.
 Johnson Co., S. T., Oakland, Calif.
 Keith Furnace Co., Des Moines, Ia.
 Kleen-Heat, Inc., Chicago, Ill.
 Kol-Master Corp., Oregon, Ill.
 Ko-Z-Aire Products, Inc., Red Oak, Ia.
 Kresky Mfg. Co., Inc., Petaluma, Calif.
 Laco Oil Burner Co., Inc., Griswold, Ia.
 Lennox Furnace Co., Marshalltown, Ia.
 Lincoln Furnace Co., Inc., Hawthorne, N. J.
 Lynn Products Co., Lynn, Mass.
 Magic Chef, Inc., St. Louis, Mo.
 Majestic Co., Huntington, Ind.
 Malleable Iron Fittings Co., Branford, Conn.
 Mayflower Air Conditioners, Inc., St. Paul, Minn.
 McDonald Mfg. Co., A. Y., Dubuque, Iowa.
 McPherson Furnace & Supply Co., Portland, Ore.
 Metro Metal Mfg. Co., Holt, Mich.
 Metromatic Mfg. Co., Everett, Mass.
 Meyer Furnace Co., Peoria, Ill.
 Montag Stove & Furnace Works, Portland, Ore.
 Morrison Steel Products, Inc., Buffalo, N. Y.
 Mortemp Div., Mechanical Products Co., Seattle, Wash.
 Mt. Hawley Mfg. Co., Peoria, Ill.
 Mueller Climatrol, Milwaukee, Wis.
 National Airoil Burner Co., Inc., Philadelphia, Pa.
 National Fuel Conservation Co., Inc., White Plains, N. Y.
 Norge Heat Div., Borg-Warner Corp., Kalamazoo, Mich.
 Northwest Foundry & Furnace Co., Portland, Ore.
 Nu-Way Corp., The Rock Island, Ill.
 Oil Equipment Laboratories, Inc., Elizabeth, N. J.
 Olsen Mfg. Co., The C. A., Elyria, O.
 Paragon Oil Burner Corp., Brooklyn, N. Y.
 Peerless Furnace and Foundry Co., Indianapolis, Ind.
 Penn Boiler & Burner Mfg. Corp., Lancaster, Pa.
 Perfection Stove Co., Cleveland, O.

Petro Div., Iron Fireman Mfg. Co., Cleveland, O.
 Premier Furnace Co., Dowagiac, Mich.
 Premium Coal & Oil Co., Cincinnati, O.
 Quick Furnace & Supply Co., Des Moines, Ia.
 Quiet Automatic Burner Corp., Newark, N. J.
 Quiet-Heat Mfg. Corp., Subsidiary of Emerson Radio and Phonograph Corp., Newark, N. J.
 Radiant Utilities Corp., Brooklyn, N. Y.
 Ray Oil Burner Co., San Francisco, Calif.
 Red Wing Oil Burner Co., Inc., Medford, Mass.
 Reichhelm Co., Robert, Stratford, Conn.
 Reif-Rexoil, Inc., Buffalo, N. Y.
 Robot Auto-Heat Corp., Middletown, Conn.
 Ronci Machine Co., Inc., F., Centredale, R. I.
 Rossie Mfg. Co., Seattle, Wash.
 Round Oak Co., Inc., Dowagiac, Mich.
 Rybolt Heater Co., Ashland, O.
 S-K Co., Inc., Camden, N. J.
 Sandberg Mfg. Co., Portland, Ore.
 Schwab Safe Co., Lafayette, Ind.
 Selectrol Engineering Co., Brooklyn, N. Y.
 Silent Glow Oil Burner Co., Hartford, Conn.
 Simplex Oil Heating Corp., Philadelphia, Pa.
 Standard Arcoil Corp., Newark, N. J.
 Steel Products Engineering Co., Combustioneer Div., Springfield, O.
 Stewart-Warner Corp., U. S. Machine Div., Lebanon, Ind.
 Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
 Sundstrand Engineering Co., Rockford, Ill.
 Sun-Fire Stoker Corp., New Albany, Ind.
 Sun-Ray Burner Mfg. Corp., Jamaica, N. Y.
 Swingfire Div., Devenco, Inc., New York, N. Y. (Gasoline)
 Synchronous Flame, Inc., Walworth, Wis.
 Syncromatic Corp., Watertown, Wis.
 Thatcher Furnace Co., Garwood, N. J.
 Thermo-O-Blast Div., O'Halloran Inds., Detroit, Mich.
 Thermo-Products, Inc., North Judson, Ind.
 Timken Silent Automatic Div., Rockwell Spring and Axle Co., Jackson, Mich.
 Toridheet Div., Cleveland Steel Products Corp., Cleveland, O.
 Tru-Heat Co., Trenton, N. J.
 Twin Control Burner Mfg. Co., New York, N. Y.
 U. S. Burner Div., The Carlin Co., Wethersfield, Conn.
 United States Radiator Corp., Detroit Mich.
 Viking Mfg. Corp., Cleveland, O.
 Volcano Burner Corp., New York, N. Y.
 Waltham Oil Burner Co., Inc., Boston, Mass.
 Waterman-Waterbury Co., Minneapolis, Minn.
 Wayne Home Equipment Co., Inc., Ft. Wayne, Ind.
 Weatherall Engineers, Inc., Providence, R. I.
 Will-Burt Co., Orrville, O.
 Williams Div., Eureka-Williams Co., Div. of Henney Motor Co., Inc., Bloomington, Ill.
 Williamson Heater Co., Cincinnati, O.
 Wisconsin Oil Burner Co., Madison, Wis.
 York-Shipley, Inc., York, Pa.
 Yorktowne Machine Co., York, Pa.

BURNERS, CONVERSION, RESIDENTIAL, OIL, LOW PRESSURE

Automatic Burner Corp., Chicago, Ill.
 Bard Mfg. Co., Bryan, O.
 Flame-Master Co., Chicago, Ill.
 Hall-Neal Furnace Co., Indianapolis, Ind.
 Hy-Lo Burner Co., Inc., Eddington, Pa.
 Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill.
 Kleen-Heat, Inc., Chicago, Ill.
 Majestic Co., Huntington, Ind.
 Nu-Way Corp., The Rock Island, Ill.
 Radiant Utilities Corp., Brooklyn, N. Y.
 Steel Products Engineering Co., Combustioneer Div., Springfield, O.
 Stewart-Warner Corp., U. S. Machine Div., Lebanon, Ind.
 Sundstrand Engineering Co., Rockford, Ill.
 Wayne Home Equipment Co., Inc., Ft. Wayne, Ind.
 Weatherall Engineers, Inc., Providence, R. I.
 Williams Div., Eureka-Williams Co., Div. of Henney Motor Co., Inc., Bloomington, Ill.

BURNERS, CONVERSION, RESIDENTIAL, OIL, ROTARY

Caloril Burner Corp., Hartford, Conn.
 Chalmers Oil Burner Co., Minneapolis, Minn.
 Diesel Oil Burner Corp., Jamaica, N. Y.
 Fluid Heat Div., Anchor Post Products, Inc., Baltimore, Md.

McKee Furnace Co., Minneapolis, Minn.
 Ray Oil Burner Co., San Francisco, Calif.
 Rayfield-Staffco Burner Co., Chicago, Ill.
 Whirling Oil Burner Mfg. Corp., Jamaica, N. Y.
 Timken Silent Automatic Div., Rockwell Spring and Axle Co., Jackson, Mich.
 Toridheet Div., Cleveland Steel Products Corp., Cleveland, O.

BURRING MACHINES

See Machines, Burring

CABINETS AND CASINGS

Armstrong Furnace Co., Columbus, Ohio.
 Atlas Mfg. Co., St. Paul, Minn.
 Berger Furnace Corp., Belle Vernon, Pa.
 Berger Mfg. Co., Div. of Republic Steel Corp., Canton, Ohio.
 Biersach & Neidermeyer Co., Milwaukee, Wis.
 Brundage Co., Kalamazoo, Mich.
 Chicago Metal Mfg. Co., Chicago, Ill.
 Dahlstrom Metallic Door Co., Jamestown, N. Y.
 Falstrom Co., Passaic, N. J.
 Harrison Sheet Steel Co., Chicago, Ill.
 Kirk & Blum Mfg. Co., Cincinnati, Ohio.
 Lau Blower Co., Dayton, Ohio.
 Lindsay Structure, Inc., Skokie, Ill.
 Maysteel Products, Inc., Milwaukee, Wis.
 Moss Industries, Inc., Brooklyn, N. Y.
 Northwest Foundry & Furnace Co., Portland, Ore.
 Republic Steel Corp., Cleveland, O.
 Riester & Thesmacher Co., Cleveland, Ohio.
 St. Charles Mfg. Co., St. Charles, Ill.
 Skinner Heating & Ventilating Co., St. Louis, Mo.
 Thermo-Products, Inc., North Judson, Ind.
 Utica Products, Inc., Utica, N. Y.
 Zick Sheet Metal Works, Dearborn, Mich.

CALCULATORS, HEATING, AIR CONDITIONING AND SHEET METAL

Calculator Specialty Co., Chicago, Ill.
 Climatemaker Heat Loss Calculator Co., Bloomington, Ill.
 Morton Engineering Services, Paul S., Lawrence, Mich.
 Perrygraf Corp., Maywood, Ill.

CANOPIES, PREFABRICATED

Air Control Products, Inc., Coopersville, Mich.
 Kawneer Co., Niles, Mich.

CAPACITORS, ELECTRICAL, FOR POWER FACTOR CORRECTIONS

General Electric Co., Capacitor Dept., Hudson Falls, N. Y.

CAPS AND TOPS, CHIMNEY

Accurate Sheet Metal & Mfg. Works, Chicago, Ill.
 Acme Mfg. Co., Philadelphia, Pa.
 Adams Co., Dubuque, Iowa.
 Airjet Ventilator Co., Pasadena, Calif.
 Ammerman Co., C. L., Minneapolis, Minn.
 Berger Furnace Corp., Belle Vernon, Pa.
 Bieler & Sons, Inc., L., Long Island City, N. Y.
 Boston Machine Works Co., Lynn, Mass.
 Breidert Co., G. C., San Fernando, Calif.
 Coleman Co., Inc., Wichita, Kans.
 Excelsior Steel Furnace Co., Chicago, Ill.
 Excelsior Stove & Mfg. Co., Quincy, Ill.
 Gerhardt Co., Inc., George T., Sausalito, Calif.
 Inland Steel Products Co., Milwaukee, Wis.
 Little Burner Co., Inc., H. C., San Rafael, Calif.
 Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
 Majestic Co., Inc., Huntington, Ind.
 Nicework Metal Products Co., Leetsdale, Pa.
 Penn Supply & Metal Corp., Philadelphia, Pa.
 Penn Ventilator Co., Philadelphia, Pa.
 Royal-Apex Mfg. Co., Inc., Brooklyn, N. Y.
 Sheet Metal Mfg. Co., Inc., Brooklyn, N. Y.
 Sioux Steel Co., Sioux Falls, S. D.
 Southbridge Roofing Co., Inc., Southbridge, Mass.
 Standard Furnace Supply Co., Ltd., Omaha, Nebr.
 Sterling Foundry Co., Sterling, Ill.
 Tesco, Inc., Tulsa, Okla.
 Tierney Rotor Ventilator Co., Minneapolis, Minn.
 Van-Packer Corp., Bettendorf, Ia.
 Walker Mfg. & Sales Corp., St. Joseph, Mo.
 Waverly Heating Supply Co., Boston, Mass.
 Wallace Co., William, Metalbestos Div., Belmont, Calif.
 Wilder Products Co., Springfield, O.

CAPS, VENT

Morse-Smith-Morse Co., The, Watertown, Mass.
 Walker Mfg. & Sales Corp., St. Joseph, Mo.
 Wilder Products Co., Springfield, O.

CASINGS

See Cabinets and Casings

CAULKING COMPOUNDS

See Compounds, Caulking

CEILING DIFFUSERS

See Diffusers, Air, Ceiling

CEILINGS, METAL

Edwards Mfg. Co., Inc., Cincinnati, Ohio.
 Hauserman Co., E. F., Cleveland, Ohio.
 Klauer Mfg. Co., Dubuque, Iowa.
 Reynolds Metals Co., Louisville, Ky.
 Tennessee Coal, Iron & Railroad Co., Fairfield, Ala.
 Tiffin Art Metal Co., Tiffin, Ohio.
 Wheeling Corrugating Co., Wheeling, W. Va.

CEMENT, FURNACE

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
 Armstrong Co., Chicago, Ill.
 Botfield Refractories Co., Philadelphia, Pa.
 Carey Mfg. Co., Philip, Cincinnati, Ohio.
 Chicago Fire Brick Co., Chicago, Ill.
 Clinton Metallic Paint Co., Clinton, N. Y.
 Ehret Magnesia Mfg. Co., Valley Forge, Pa.
 Hercules Chemical Co., Inc., New York, N. Y.
 Hetzel Roofing Products Co., Newark, N. J.
 Johns-Manville, New York, N. Y.
 Keasbey Co., Robert A., New York, N. Y.
 Laclede-Christy Co., St. Louis, Mo.
 Lastik Products Co., Inc., Pittsburgh, Pa.
 Nebel Mfg. Co., Cleveland, Ohio.
 Pecora Paint Co., Philadelphia, Pa.
 Plastic Products Co., Detroit, Mich.
 Preferred Utilities Mfg. Corp., New York, N. Y.
 Quigley Co., Inc., New York, N. Y.
 Radiator Specialty Co., Charlotte, N. C.
 Refractory & Insulation Corp., New York, N. Y.
 Rutland Fire Clay Co., Rutland, Vt.
 S.O.S. Products Co., Inc., Brooklyn, N. Y.
 Sall Mountain Co., Hamilton, Ohio.
 Sauereisen Cements Co., Pittsburgh, Pa.
 Smooth-on Mfg. Co., Jersey City, N. J.
 Standard Asbestos Mfg. Co., Chicago, Ill.
 Standard Fuel Engineering Co., Detroit, Mich.
 Tamms Industries, Inc., Chicago, Ill.
 United Gilsonite Laboratories, Scranton, Pa.
 Walsh Refractories Corp., St. Louis, Mo.
 Wilson, Inc., Grant, Chicago, Ill.

CEMENT, INSULATING

Acme Asbestos Covering & Flooring Co., Chicago, Ill. (Asbestos, mineral wool & magnesia).
 Armstrong Cork Co., Lancaster, Pa.
 Asbestos Asphalt Insulation, Inc., Chicago, Ill.
 Baldwin-Hill Co., Trenton, N. J. (Mineral wool)
 Bird-Archer, Philadelphia, Pa.
 Botfield Refractories Co., Philadelphia, Pa.
 Carey Mfg. Co., Philip, Cincinnati, Ohio. (Asbestos, magnesia, rock wool)
 Chicago Fire Brick Co., Chicago, Ill. (Asbestos).
 Denver Fire Clay Co., Denver, Colo. (Vermiculite & rock wool; high temperature)
 Eagle-Picher Co., Cincinnati, Ohio.
 Ehret Magnesia Mfg. Co., Valley Forge, Pa. (Asbestos).
 Green Fire Brick Co., A. P., Mexico, Mo. (Mineral wool)
 Hetzel Roofing Products Co., Newark, N. J.
 International Vermiculite Co., Girard, Ill.
 Johns-Manville, New York, N. Y. (Asbestos).
 Keasbey Co., Robert A., New York, N. Y. (Asbestos).
 Keasbey & Mattison Co., Ambler, Pa. (Asbestos).
 Laclede-Christy Co., St. Louis, Mo. (Asbestos).
 Mundet Cork Corp., North Bergen, N. J. (Magnesia).
 National Fuel Conservation Co., Inc., White Plains, N. Y.
 Norristown Magnesia & Asbestos Co., Norristown, Pa. (Asbestos, rockwool & magnesia).
 Ohmlac Paint & Refining Co., Chicago, Ill. (Asphalt & asbestos).
 Pabco Products, Inc., San Francisco, Calif.
 Peterson Co., B. A., Dowagiac, Mich. (Asbestos).
 Preferred Utilities Mfg. Corp., New York, N. Y.

Pyrolite Products Co., Cleveland, Ohio.
 Quigley Co., Inc., New York, N. Y. (Asbestos).
 Ramite Co., Div. of Obermayer Co., Chicago, Ill.
 Refractory & Insulation Corp., New York, N. Y. (Castable refractory).
 Rex Roto Corp., Detroit, Mich.
 Robinson Insulation Co., Great Falls, Mont. (Vermiculite).
 Ruberoid Co., New York, N. Y. (Asbestos).
 Rutland Fire Clay Co., Rutland, Vt. (Asbestos).
 Sall Mountain Co., Hamilton, Ohio. (Asbestos).
 Sauereisen Cements Co., Pittsburgh, Pa.
 Standard Asbestos Mfg. Co., Chicago, Ill. (Asbestos).
 Standard Fuel Engineering Co., Detroit, Mich. (Rock wool & asbestos).
 Thompson & Co., Oakmont, Pa. (Asbestos).
 Union Asbestos & Rubber Co., Chicago, Ill.
 United States Mineral Wool Co., Stanhope, N. J. (Mineral wool).
 Walsh Refractories Corp., St. Louis, Mo.
 Western Mineral Products Co., Minneapolis, Minn. (Vermiculite).
 Wilson, Inc., Grant, Chicago, Ill. (Asbestos).
 Zonolite Co., Chicago, Ill. (Vermiculite).

CEMENT, REFRACTORY

See Refractories

CEMENT, ROOF

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
 Armstrong Co., Chicago, Ill.
 Barrett Div. Allied Chemical & Dye Corp., New York, N. Y.
 Bird & Son, Inc., East Walpole, Mass.
 Blue Ridge Talc Co., Inc., Henry, Va.
 Calbar Paint & Varnish Co., Philadelphia, Pa.
 Carey Mfg. Co., Philip, Cincinnati, Ohio.
 Carter Paint Co., Liberty, Ind.
 Celotex Corp., Chicago, Ill.
 Certain-teed Products Corp., Ardmore, Pa.
 Clinton Metallic Paint Co., Clinton, N. Y.
 Continental Products Co., Euclid, Ohio.
 Coopers Creek Chemical Corp., West Conshohocken, Pa.
 Flintkote Co., New York, N. Y.
 Glidden Co., Cleveland, Ohio.
 Hetzel Roofing Products Co., Newark, N. J.
 Horn Co., Inc., A. C., Long Island City, N. Y.
 Insul-Mastic Corp. of America, Pittsburgh, Pa.
 Iowa Paint Mfg. Co., Inc., Des Moines, Iowa.
 Iron-Hide Sales Co., Matawan, N.J.
 Johns-Manville, New York, N. Y.
 Koppers Co., Inc., Pittsburgh, Pa.
 Lastik Products Co., Inc., Pittsburgh, Pa.
 Lehon Co., Bellwood, Ill.
 Meadows, Inc., W. R., Elgin, Ill.
 Midland Paint & Varnish Co., Cleveland, Ohio.
 National Mfg. Corp., Tonawanda, N. Y.
 Nebel Mfg. Co., Cleveland, Ohio.
 North American Mogul Products Co., Cleveland, Ohio.
 Ohmlac Paint & Refining Co., Chicago, Ill.
 Pecora Paint Co., Philadelphia, Pa.
 Prestite Engineering Co., St. Louis, Mo.
 Ruberoid Co., New York, N. Y.
 Rutland Fire Clay Co., Rutland, Vt.
 S.O.S. Products Co., Inc., Brooklyn, N. Y.
 Sonneborn Sons, Inc., L., New York, N. Y.
 Southport Paint Co., Div. Wesson Oil & Snowdrift Co., Inc. Savannah, Ga.
 Thompson & Co., Oakmont, Pa.
 Tropical Paint Co., Cleveland, Ohio.
 United Gilsonite Laboratories, Scranton, Pa.
 United States Gypsum Co., Chicago, Ill.
 Whitlam Mfg. Co., J. C., Wadsworth, O.

CHAIN, FURNACE

Bead Chain Mfg. Co., Bridgeport, Conn.
 Hart & Cooley Mfg. Co., Holland, Mich.
 Hodell Chain Co., Div. of The National Screw & Mfg. Co., Cleveland, Ohio.
 McKay Co., Pittsburgh, Pa.
 Republic Steel Corp., Cleveland, O.
 Round Bridgeport Chain & Mfg. Co., Bridgeport, Conn.
 Russell Mfg. Co., Inc., John M., Naugatuck, Conn.
 Turner & Seymour Mfg. Co., Torrington, Conn.
 United States Register Co., Battle Creek, Mich.
 Wright Hoist Div., American Chain & Cable Co., Inc., York, Pa.

CHAMBERS, COMBUSTION, PREFORMED

Amerform Corp., Philadelphia, Pa.
 Armstrong Cork Co., Lancaster, Pa. (Insulating refractory).
 Boston Machine Works Co., Lynn, Mass. (Insulating brick).
 Chicago Fire Brick Co., Chicago, Ill. (Fire clay).
 Green Fire Brick Co., A. P., Mexico, Mo. (Fire clay, insulating brick).
 Harvey, Inc., Sid, Valley Stream, N. Y.
 Hasko Utilities Co., New York, N. Y. (Refractory).
 Insulating Castable Corp., River Rouge, Mich.
 Insulation & Refractories Co., Williamson, N. Y. (Refractory concrete & insulating refractory).
 Kolb Refractories Co., Philadelphia, Pa.
 Laclede-Christy Co., St. Louis, Mo.
 Monogram Products Co., Inc., Philadelphia, Pa. (Insulating refractory).
 Mortemp Div., Mechanical Products Co., Seattle, Wash. (Chrome Steel).
 National Airoil Burner Co., Inc., Philadelphia, Pa.
 Oil Equipment Mfg. Co., New Haven, Conn. (Inconel).
 Peterson Co., B. A., Dowagiac, Mich.
 Preferred Utilities Mfg. Corp., New York, N. Y.
 Refractory & Insulation Corp., New York, N. Y. (Refractory).
 Rehm, R., St. Albans, N. Y. (Radiant silicons).
 Rex Roto Corp., Detroit, Mich.
 S.O.S. Products Co., Inc., Brooklyn, N. Y.
 Sandberg Mfg. Co., Portland, Ore. (Stainless steel).
 Stefcow Steel Co., Michigan City, Ind.
 Universal Zonolite Insulation Co., Chicago, Ill. (Vermiculite concrete).
 Walsh Refractories Corp., St. Louis, Mo. (Refractory).
 Webber Co., A. R., New Haven, Conn. (Refractory).
 Wilson, Inc., Grant, Chicago, Ill.

CHANNELS

See Angles, Bars, Beams, Channels and Tees

CHEMICALS, RUST PREVENTIVE

American Chemical Paint Co., Ambler, Pa.
 Aquatrol Laboratories, Inc., Clifton, N. J.
 Carbide & Carbon Chemicals Co., Div. Union Carbide & Carbon Corp., New York, N. Y.
 Cristy Specialty Corp., Worcester, Mass.
 Dearborn Chemical Co., Chicago, Ill.
 Industrial Service Laboratories, Milwaukee, Wis.
 Klem Chemicals, Inc., Dearborn, Mich.
 Madden Corp., The, Chicago, Ill.
 Magnus Chemical Co., Garwood, N.J.
 Neilson Chemical Co., Detroit, Mich.
 North American Mogul Products Co., Cleveland, Ohio.
 Oakite Products, Inc., New York, N. Y.
 Okun Co., A. L., So. Ozone Park, N. Y.
 Parker Rust-Proof Co., Detroit, Mich.
 Pennsylvania Refining Co., Ohio Div., Cleveland, Ohio.
 Pennsylvania Salt Mfg. Co., Philadelphia, Pa.
 Protective Coatings, Inc., Detroit, Mich.
 Radiator Specialty Co., Charlotte, N. C.
 Rossaul Co., New York, N. Y.
 S.O.S. Products Co., Inc., Brooklyn, N. Y.
 Solvay Process Div., Allied Chemical & Die Corp., New York, N. Y.
 Sudbury Laboratory, South Sudbury, Mass.
 Truscon Laboratories, Detroit, Mich.
 Turco Products, Inc., Los Angeles, Calif.
 Wolfe-Kote Co., Sheboygan, Wis.

CHIMNEY CAPS

See Caps and Tops, Chimney

CHIMNEY LININGS

See Linings, Chimney

CHIMNEYS, PREFABRICATED

Berger Furnace Corp., Belle Vernon, Pa.
 Chimney Sales Corp., Washington, D. C.
 Condensation Engineering Corp., Chicago, Ill.
 General Products Co., Fredericksburg, Va.
 Johns-Manville, New York, N. Y.
 Majestic Co., Inc., Huntington, Ind.
 Van-Packer Corp., Bettendorf, Ia.
 Wallace Co., William, Metalbestos Div., Belmont, Calif.

CLEANERS, AIR ELECTRICAL

See Filters, Air, Electrostatic

CLEANERS, POLISHERS AND FINISHERS, METAL

Allen Co., Inc., L. B., Chicago, Ill. (Stainless steel & monel).
American Chemical Paint Co., Ambler, Pa.
Ampion Corp., Long Island City, N. Y. (All metals)
Brulin Co., Indianapolis, Ind. (De-greasing compound)
du Pont de Nemours & Co., Inc., E. I., Wilmington, Del. (All metals).
Klem Chemicals, Inc., Dearborn, Mich.
Magnus Chemical Co., Garwood, N. J.
NuSteel Co., Chicago, Ill. (Aluminum & stainless steel).
Oakite Products, Inc., New York, N. Y.
Parker Rust-Proof Co., Detroit, Mich.
Pennsylvania Salt Mfg. Co., Philadelphia, Pa. (Ferrous and non-ferrous)
Protective Coatings, Inc., Detroit, Mich.
Rossaul Co., New York, N. Y.
Standard Steel Spring Co., Gary, Ind.
Tamm Industries Inc., Chicago, Ill.
Truscon Laboratories, Detroit, Mich.
Turco Products, Inc., Los Angeles, Calif.
Western Reserve Laboratories, Cleveland, Ohio.
Wolfe-Kote Co., Sheboygan, Wis.

CLEANERS, VACUUM, FURNACE

Ace Co., Ocala, Fla.
Baker Furnace & Cleaner Mfg. Co., Toledo, Ohio.
Breuer Electric Mfg. Co., Chicago, Ill.
Chicago Blower Corp., Franklin Park, Ill.
Doyle Vacuum Cleaner Co., Grand Rapids, Mich.
Empire Chemical Products Co., Newark, N. J.
General Blower Co., Morton Grove, Ill.
Harvey, Inc., Sid, Valley Stream, N. Y.
Hasko Utilities Co., New York, N. Y.
Ideal Industries, Inc., Sycamore, Ill.
Kent Co., Inc., Rome, N. Y.
Master-Craft Supply Co., Inc., Haverstraw, N. Y.
Molloy Machine Corp., Chicago, Ill.
National Super Service Co., Inc., Toledo, Ohio.
Premier Co., St. Paul, Minn.
Pullman Vacuum Cleaner Corp., Boston, Mass.
Spencer Turbine Co., Hartford, Conn.

CLEANOUT DOORS

See Doors, Cleanout

CLEAT BENDERS

See Machines, Cleat Bending

CLEATS, DRIVE

See Connectors, Metal

CLIPS, FASTENING, ROOFING

Bard Mfg. Co., Bryan, Ohio.
Berger Bros. Co., Philadelphia, Pa.
Bridenburg Foundry Co., Philadelphia, Pa.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Edwards Mfg. Co., Inc., Cincinnati, Ohio.
Inland Steel Products Co., Milwaukee, Wis.
Lexsco, Inc., Cleveland, Ohio.
Southbridge Roofing Co., Inc., Southbridge, Mass.

CLIPS AND TIPS, DAMPER

Adams Co., Dubuque, Iowa.
Air Control Products, Inc., Coopersville, Mich.
Berger Bros. Co., Philadelphia, Pa.
Gerett Corp., M. A., Milwaukee, Wis.
Hart & Cooley Mfg. Co., Holland, Mich.
Howes-Woods Co., Cambridge, Mass.
Kerentoff, G. L., Cincinnati, Ohio.
Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
Mueller Climatrol, Milwaukee, Wis.
Severson Mfg. & Supply Co., Milwaukee, Wis.
United States Register Co., Battle Creek, Mich.
Young Regulator Co., Cleveland, Ohio.

CO₂ ANALYZERS

See Analyzers, CO₂

COAL BURNERS, AUTOMATIC

See Stokers

COATINGS, PROTECTIVE, FOR METALS

See Waterproofing, Coating Material

COILS, COOLING, DIRECT EXPANSION

Aerofin Corp., Syracuse, N. Y.
Airtemp Div., Chrysler Corp., Dayton, O.
American Coils Co., Inc., Newark, N. J.
Beacon-Morris Corp., Boston, Mass.
Betz Corp., Hammond, Ind.
Bohn Aluminum & Brass Corp., Detroit, Mich.
Bush Mfg. Co., West Hartford, Conn.
Carrier Corp., Syracuse, N. Y.
Conditionaire Unit Co., Chicago, Ill.
Curtis Refrigerating Machine Div., Curtis Mfg. Co., St. Louis, Mo.
Drayer-Hanson, Inc., Los Angeles, Calif.
Frigidaire Div., General Motors Corp., Dayton, Ohio.
Governair Corp., Oklahoma City, Okla.
Hastings Air Control, Inc., Omaha, Nebr.
International Mfg. Co., Oklahoma City, Okla.
Kauffman Air Conditioning Corp., St. Louis, Mo.
Kennard Corp., St. Louis, Mo.
Kirsch Co., Refrigeration Div., Sturgis, Mich.
Kramer Trenton Co., Trenton, N. J.
Larkin Coils, Inc., Atlanta, Ga.
McCord Corp., Detroit, Mich.
McQuay, Inc., Minneapolis, Minn.
Marlo Coil Co., St. Louis, Mo.
Mitchell & Co., Inc., W. K., Philadelphia, Pa.
Modine Mfg. Co., Racine, Wis.
Niagara Blower Co., New York, N. Y.
Peerless of America, Inc., Chicago, Ill.
Perfex Corp., Milwaukee, Wis.
Reco Products Div., Reconst Corp., New York, N. Y.
Refrigeration Economics Co., Inc., Canton, Ohio.
Refrigeration Engineering, Inc., Los Angeles, Calif.
Rempe Co., Chicago, Ill.
Rigidbilt, Inc., Chicago, Ill.
Rinehart, Inc., Richmond, Ind.
Roessing Mfg. Co., Sharpsburg Sta., Pittsburgh, Pa.
Rome-Turney Radiator Co., Rome, N. Y.
Shana Mfg. Co., Chicago, Ill.
Super Radiator Corp., Minneapolis, Minn.
Sutton Corp., O. A., Wichita, Kans.
Tenney Engineering, Inc., Union, N. J.
Trane Co., The, La Crosse, Wis.
Typhoon Air Conditioning Co., Inc., Brooklyn, N. Y.
Union Asbestos & Rubber Co., Chicago, Ill.
United States Air Conditioning Corp., Minneapolis, Minn.
Vilter Mfg. Co., Milwaukee, Wis.
Westinghouse Electric Corp., Sturtevant Div., Boston, Mass.
Williamson Heater Co., Cincinnati, O.
Worthington Corp., Harrison, N. J.
York Corp., York, Pa.
Young Radiator Co., Racine, Wis.

COILS, COOLING, WATER

Aerofin Corp., Syracuse, N. Y.
Beacon-Morris Corp., Boston, Mass.
Bush Mfg. Co., West Hartford, Conn.
Carrier Corp., Syracuse, N. Y.
Conditionaire Unit Co., Chicago, Ill.
Drayer-Hanson, Inc., Los Angeles, Calif.
Frigidaire Div. General Motors Corp., Dayton, Ohio.
G & O Mfg. Co., New Haven, Conn.
Governair Corp., Oklahoma City, Okla.
Hastings Air Control, Inc., Omaha, Nebr.
International Mfg. Co., Oklahoma City, Okla.
Kauffman Air Conditioning Corp., St. Louis, Mo.
Kennard Corp., St. Louis, Mo.
Kramer Trenton Co., Trenton, N. J.
Larkin Coils, Inc., Atlanta, Ga.
McCord Corp., Detroit, Mich.
McQuay, Inc., Minneapolis, Minn.
Marlo Coil Co., St. Louis, Mo.
Modine Mfg. Co., Racine, Wis.
National Pipe Bending Co., New Haven, Conn.
Nesbitt, Inc., John J., Philadelphia, Pa.
Niagara Blower Co., New York, N. Y.
Peerless of America, Inc., Chicago, Ill.
Refrigeration Economics Co., Inc., Canton, Ohio.
Refrigeration Engineering, Inc., Los Angeles, Calif.
Rempe Co., Chicago, Ill.
Rigidbilt, Inc., Chicago, Ill.
Roessing Mfg. Co., Sharpsburg Sta., Pittsburgh, Pa.
Rome-Turney Radiator Co., Rome, N. Y.
Super Radiator Corp., Minneapolis, Minn.
Tenney Engineering, Inc., Union, N. J.
Trane Co., La Crosse, Wis.
Typhoon Air Conditioning Co., Inc., Brooklyn, N. Y.

Union Asbestos & Rubber Co., Chicago, Ill.
 United States Air Conditioning Corp., Minneapolis, Minn.
 Vilter Mfg. Co., Milwaukee, Wis.
 Westinghouse Electric Corp., Sturtevant Div., Boston, Mass.
 Wing Mfg. Co., L. J., Linden, N.J.
 Worthington Corp., Harrison, N. J.
 York Corp., York, Pa.
 Young Radiator Co., Racine, Wis.

COILS, FIRE POT, DOMESTIC HOT WATER

Adams Co., Dubuque, Iowa.
 Dowagiac Steel Furnace Co., Dowagiac, Mich.
 Front Rank Furnace Co., Div. Liberty Foundry Co., St. Louis, Mo.
 Marshall Furnace Co., Marshall, Mich.
 Rempe Co., Chicago, Ill.
 Therm Oil Burner Co., Seattle, Wash.

COILS, HEATING

Aerofin Corp., Syracuse, N. Y.
 American Coils, Inc., Newark, N. J.
 Ammerman Co., C. L., Minneapolis, Minn.
 Bayley Blower Co., Milwaukee, Wis.
 Beacon-Morris Corp., Boston, Mass.
 Bush Mfg. Co., West Hartford, Conn.
 Conditional Unit Co., Chicago, Ill.
 Curtis Refrigerating Machine Div., Curtis Mfg. Co., St. Louis, Mo.
 Drayer-Hanson, Inc., Los Angeles, Calif.
 G & O Mfg. Co., New Haven, Conn.
 Governair Corp., Oklahoma City, Okla.
 Hastings Air Control, Inc., Omaha, Neb.
 International Mfg. Co., Oklahoma City, Okla.
 Kauffman Air Conditioning Corp., St. Louis, Mo.
 Kennard Corp., St. Louis, Mo.
 Kramer Trenton Co., Trenton, N. J.
 Larkin Coils, Inc., Atlanta, Ga.
 McCord Corp., Detroit, Mich.
 McQuay, Inc., Minneapolis, Minn.
 Mario Coil Co., St. Louis, Mo.
 Modine Mfg. Co., Racine, Wis.
 National Pipe Bending Co., New Haven, Conn.
 Nesbitt, Inc., John J., Philadelphia, Pa.
 New York Blower Co., Chicago, Ill.
 Niagara Blower Co., New York, N. Y.
 Refrigeration Economics Co., Inc., Canton, Ohio.
 Refrigeration Engineering, Inc., Los Angeles, Calif.
 Rempe Co., Chicago, Ill.
 Rigidbilt, Inc., Chicago, Ill.
 Roessing Mfg. Co., Pittsburgh, Pa.
 Rome-Turney Radiator Co., Rome, N. Y.
 Super Radiator Corp., Minneapolis, Minn.
 Trane Co., La Crosse, Wis.
 Typhoon Air Conditioning Co., Inc., Brooklyn, N. Y.
 Union Asbestos & Rubber Co., Chicago, Ill.
 United States Air Conditioning Corp., Minneapolis, Minn.
 Vulcan Radiator Co., Hartford, Conn.
 Westinghouse Electric Corp., Sturtevant Div., Boston, Mass.
 Wing Mfg. Co., L. J., Linden, N.J.
 Worthington Corp., Harrison, N. J.
 York Corp., York, Pa.
 Young Radiator Co., Racine, Wis.

COLLECTORS, BLOW PIPE

Aerotec Corp., The, Greenwich, Conn.
 Agat-Detroit Co., Ann Arbor, Mich.
 American Air Filter Co., Inc., Louisville, Ky.
 American Blower Corp., Detroit, Mich.
 Blower Application Co., Milwaukee, Wis.
 Buffalo Forge Co., Buffalo, N. Y.
 Carolina Blower Co., Inc., Greensboro, N. C.
 Chicago Blower Corp., Franklin Park, Ill.
 Day Co., Minneapolis, Minn.
 Dust Suppression & Engineering Co., Lake Orion, Mich.
 Farr Co., Los Angeles, Calif.
 Goergen-Mackworth Engineering Co., Buffalo, N. Y.
 Goethel Sheet Metal Works, Inc., Alfred, Milwaukee, Wis.
 Hammond Machinery Builders, Inc., Kalamazoo, Mich.
 Kindt-Collins Co., Cleveland, O.
 Kirk & Blum Mfg. Co., Cincinnati, Ohio.
 Litman, Morris, Springfield, Mass.
 Lumm Co., A. H., Toledo, Ohio.
 Newcomb-Detroit Co., Detroit, Mich.
 Northern Blower Co., Cleveland, Ohio.
 Pangborn Corp., Hagerstown, Md.
 Peters-Dalton, Inc., Detroit, Mich.
 Puhl & Hepper Mfg. Co., Inc., St. Louis, Mo.
 Rees Blow Pipe Mfg. Co., Berkeley, Calif.

Ruemelin Mfg. Co., Milwaukee, Wis.
 Skinner Heating & Vent Co., St. Louis, Mo.
 Sly Mfg. Co., W. W., Cleveland, Ohio.
 Torit Mfg. Co., St. Paul, Minn.
 Western Blower Co., Seattle, Wash.
 Western Precipitation Corp., Los Angeles, Calif.
 Winkler & Sons, Inc., A. E., Milwaukee, Wis.
 Young & Bertke Co., Cincinnati, Ohio.

COMBUSTION CHAMBERS

See Chambers, Combustion, Preformed; Baffles, Combustion Chamber

COMBUSTION CONTROLS

See Controls; Dampers, Draft

COMPOUNDS, AIR FRESHENING

Carbide & Carbon Chemicals Co., Div. Union Carbide & Chemical Corp., New York, N. Y.

COMPOUNDS, CAULKING

Adhesives & Coatings Div., Minnesota Mining & Mfg. Co., Detroit, Mich.
 Allmetal Weatherstrip Co., Chicago, Ill.
 American-Marietta Co., Chicago, Ill.
 Armstrong Co., Chicago, Ill.
 Babbitt Chemical Specialties Co., New Bedford, Mass.
 Barrett Div., Allied Chemical & Dye Corp., New York, N. Y.
 Blue Ridge Talc Co., Inc., Henry, Va.
 Calbar Paint & Varnish Co., Philadelphia, Pa.
 Carey Mfg. Co., Philip, Cincinnati, Ohio.
 Carter Paint Co., Liberty, Ind.
 Chamberlin Co. of America, Detroit, Mich.
 Cheesman-Elliott Co., Inc., Brooklyn, N. Y.
 Continental Products Co., Euclid, Ohio.
 Division Lead Co., Summit, Ill.
 Flintkote Co., New York, N. Y.
 Glidden Co., Cleveland, Ohio.
 Goodrich Co., B. F., Akron, Ohio.
 Hercules Chemical Co., Inc., New York, N. Y.
 Hetzel Roofing Products Co., Newark, N. J.
 Horn Co., Inc., A. C., Long Island City, N. Y.
 Iowa Paint Mfg. Co., Inc., Des Moines, Ia.
 Irvington Varnish & Insulator Div., Minnesota Mining & Mfg. Co., Irvington, N. J.
 Johns-Manville, New York, N. Y.
 Lastik Products Co., Inc., Pittsburgh, Pa.
 Lehon Co., Bellwood, Ill.
 Meadows, Inc., W. R., Elgin, Ill.
 Midland Paint & Varnish Co., Cleveland, Ohio.
 Miracle Adhesives Corp., New York, N. Y.
 Mortell Co., J. W., Kankakee, Ill.
 National Mfg. Corp., Tonawanda, N. Y.
 Nebel Mfg. Co., Cleveland, Ohio.
 Ohmlac Paint & Refining Co., Chicago, Ill.
 Okun Co., A. L., So. Ozone Park, N. Y.
 Pabco Products, Inc., San Francisco, Calif.
 Pecora Paint Co., Philadelphia, Pa.
 Pittsburgh Plate Glass Co., Pittsburgh, Pa.
 Plastic Products Co., Detroit, Mich.
 Presstite Engineering Co., St. Louis, Mo.
 Products Research Co., Los Angeles, Calif.
 Quigley Co., Inc., New York, N. Y.
 Robertson Co., H. H., Pittsburgh, Pa.
 S.O.S. Products Co., Inc., Brooklyn, N. Y.
 Sherwin-Williams Co., Cleveland, Ohio.
 Sipe & Co., James B., Pittsburgh, Pa.
 Smooth-on Mfg. Co., Jersey City, N. J.
 Sonneborn Sons, Inc., L., New York, N. Y.
 Southport Paint Co., Div. Wesson Oil & Snowdrift Co., Inc., Savannah, Ga.
 Tamms Industries Inc., Chicago, Ill.
 Thompson & Co., Oakmont, Pa.
 Toch Bros., Inc., Staten Island, N. Y.
 Tropical Paint Co., Cleveland, Ohio.
 Truscon Laboratories, Detroit, Mich.
 Whitlam Mfg. Co., J. C., Wadsworth, O.
 X-Pando Corp., Long Island City, N. Y.

COMPOUNDS, CLEANING, AIR FILTER

Carbide & Carbon Chemicals Co., Div. Union Carbide & Carbon Corp., New York, N. Y.
 City Chemical Corp., New York, N. Y.
 Dollinger Corp., Rochester, N. Y.
 Madden Corp., The, Chicago, Ill.
 Magnus Chemical Co., Garwood, N.J.
 Oakite Products, Inc., New York, N. Y.

COMPOUNDS, CLEANING, CONDENSER AND COIL

American Chemical Paint Co., Ambler, Pa.
Aquatrol Laboratories, Inc., Clifton, N. J.
Bird-Archer Co., Philadelphia, Pa.
Carolina Aniline & Extract Co., Inc., Charlotte, N. C.
Chemical Solvent Co., Birmingham, Ala.
Dearborn Chemical Co., Chicago, Ill.
Hercules Chemicals Co., Inc., New York, N. Y.
Madden Corp., The, Chicago, Ill.
Magnus Chemical Co., Garwood, N. J.
Metropolitan Refining Co., Inc., Long Island City, N. Y.
Oakite Products, Inc., New York, N. Y.
Pennsylvania Salt Mfg. Co., Philadelphia, Pa.
Radiator Specialty Co., Charlotte, N. C.
S. O. S. Products Co., Inc., Brooklyn, N. Y.
Turco Products, Inc., Los Angeles, Calif.

COMPOUNDS, COLD GALVANIZING

Galvicon Corp., New York, N. Y.

COMPOUNDS, WATER CONDITIONING

Aquatrol Laboratories, Inc., Clifton, N. J.
Bird-Archer, Philadelphia, Pa.
City Chemical Corp., New York, N. Y.
du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.
Garman Co., Inc., St. Louis, Mo.
Madden Corp., The, Chicago, Ill.
Moreheat Distribution Co., Cincinnati, O.
Permutit Co., New York, N. Y.

COMPRESSORS, REFRIGERATING, OPEN

Brunner Mfg. Co., Utica, N. Y.
Copeland Refrigeration Corp., Sidney, Ohio.
Curtis Refrigerating Machine Div., Curtis Mfg. Co., St. Louis, Mo.
Dicel Div. General Machine & Mfg. Co., Berwick, Pa.
Frick Co., Waynesboro, Pa.
Frigidaire Div. General Motors Corp., Dayton, Ohio.
Lehigh Mfg. Co., Lancaster, Pa.
Lipman Refrigeration Div., Yates-American Machine Co., Beloit, Wis.
Reliance Refrigerating Machine Co., Chicago, Ill.
Reynolds Mfg. Co., Springfield, Mo.
Tecumseh Products Co., Tecumseh, Mich.
Trane Co., LaCrosse, Wis.
Worthington Corp., Harrison, N. J.
Yeomans Bros. Co., Melrose Park, Ill.
York Corp., York, Pa.

COMPRESSORS, REFRIGERATING, SEALED

Brunner Mfg. Co., Utica, N. Y.
Carrier Corp., Syracuse, N. Y.
Copeland Refrigeration Corp., Sidney, Ohio.
Frigidaire Div., General Motors Corp., Dayton, Ohio.
Kauffman Air Conditioning Corp., St. Louis, Mo.
Lehigh Mfg. Co., Lancaster, Pa.
Servel, Inc., Evansville, Ind.
Tecumseh Products Co., Tecumseh, Mich.
Westinghouse Electric Corp., Sturtevant Div., Boston, Mass.
Worthington Corp., Harrison, N. J.
York Corp., York, Pa.

CONDENSERS, REFRIGERATING, AIR COOLED

Airtemp Div. Chrysler Corp., Dayton, Ohio.
Brunner Mfg. Co., Utica, N. Y.
Buffalo Forge Co., Buffalo, N. Y.
Bush Mfg. Co., West Hartford, Conn.
Carrier Corp., Syracuse, N. Y.
Condenser Service & Engrg. Co., Inc., Hoboken, N. J.
Curtis Refrigerating Machine Div., Curtis Mfg. Co., St. Louis, Mo.
Dicel Div., General Machine & Mfg. Co., Berwick, Pa.
Drayer-Hanson, Inc., Los Angeles, Calif.
Fedders-Quigan Corp., Buffalo, N. Y.
Frigidaire Div., General Motors Corp., Dayton, Ohio.
Heat-X-Changer Co., The, Brewster, N. Y.
Kauffman Air Conditioning Corp., St. Louis, Mo.
Kramer Trenton Co., Trenton, N. J.
Marlo Coil Co., St. Louis, Mo.
McQuay, Inc., Minneapolis, Minn.
Perfex Corp., Milwaukee, Wis.
Rome-Turney Radiator Co., Rome, N. Y.
Super Radiator Corp., Minneapolis, Minn.
Westinghouse Elec. Corp., Sturtevant Div., Boston, Mass.
York Corp., York, Pa.

CONDENSERS, REFRIGERATING, EVAPORATIVE

Acme Industries, Inc., Jackson, Mich.
Baltimore Aircoil Co., Inc., Baltimore, Md.
Brunner Mfg. Co., Utica, N. Y.
Buffalo Forge Co., Buffalo, N. Y.
Bush Mfg. Co., West Hartford, Conn.
Carrier Corp., Syracuse, N. Y.
Coleman Co., Inc., Wichita, Kans.
Condenser Service & Engineering Co., Inc., Hoboken, N. J.
Crowell & Dunn, Inc., New York, N. Y.
Curtis Refrigerating Machine Div., Curtis Mfg. Co., St. Louis, Mo.
DeSoto Oil Burner Corp., York, Pa.
Drayer-Hanson, Inc., Los Angeles, Calif.
Frigidaire Div., General Motors Corp., Dayton, O.
Governair Corp., Oklahoma City, Okla.
Harry Cooling Towers, Inc., New York, N. Y.
Kauffman Air Conditioning Corp., St. Louis, Mo.
Kennard Corp., St. Louis, Mo.
Kramer Trenton Co., Trenton, N. J.
Larkin Coils, Inc., Atlanta, Ga.
Marlo Coil Co., St. Louis, Mo.
McQuay, Inc., Minneapolis, Minn.
Niagara Blower Co., New York, N. Y.
Power-Freeze, Inc., Atlanta, Ga.
Refrigeration Economics Co., Inc., Canton, O.
Refrigeration Engineering, Inc., Los Angeles, Calif.
Servel, Inc., Evansville, Ind.
Typhoon Air Conditioning Co., Inc., Brooklyn, N. Y.
Union Asbestos & Rubber Co., Chicago, Ill.
Vilter Mfg. Co., Milwaukee, Wis.
Westinghouse Electric Corp., Sturtevant Div., Boston, Mass.
Worthington Corp., Harrison, N. J.
XL Refrigerating Co., Chicago, Ill.
York Corp., York, Pa.
Yorktowne Machine Co., Inc., York, Pa.

CONDENSERS, REFRIGERATING, SHELL AND COIL

Acme Industries, Inc., Jackson, Mich.
Autorad Inc., Chicago, Ill.
Brown Fintube Co., The, Elyria, O.
Carrier Corp., Syracuse, N. Y.
Condenser Service & Engineering Co., Inc., Hoboken, N. J.
Curtis Refrigerating Machine Div., Curtis Mfg. Co., St. Louis, Mo.
Dersch, Gesswein & Neuert, Inc., Chicago, Ill.
Doyle & Roth Mfg. Co., Brooklyn, N. Y.
General Fittings Co., Providence, R. I.
Heat-X-Changer Co., Inc., The, Brewster, N. Y.
Nooter Corp., St. Louis, Mo.
Reco Products Div., Recony Corp., New York, N. Y.
Refrigeration Economics Co., Inc., Canton, O.
Rempe Co., Chicago, Ill.
Rome-Turney Radiator Co., Rome, N. Y.
Standard Refrigeration Co., Chicago, Ill.
X L Refrigerating Co., Chicago, Ill.

CONDENSERS, REFRIGERATING, SHELL AND TUBE

Acme Industries, Inc., Jackson, Mich.
Autorad Inc., Chicago, Ill.
Brown Fintube Co., The, Elyria, O.
Carrier Corp., Syracuse, N. Y.
Condenser Service & Engineering Co., Inc., Hoboken, N. J.
Curtis Refrigerating Machine Div., Curtis Mfg. Co., St. Louis, Mo.
Devine Mfg. Co., J. P., Div. of H. K. Porter Co., Inc., Pittsburgh, Pa.
Doyle & Roth Mfg. Co., Brooklyn, N. Y.
Frigidaire Div., General Motors Corp., Dayton, Ohio.
Howard Iron Works & Alberger Heater Div., Buffalo, N. Y.
Nooter Corp., St. Louis, Mo.
Reco Products Div., Recony Corp., New York, N. Y.
Refrigeration Economics Co., Inc., Canton, O.
Semet-Solvay Engineering Div., Allied Chemical & Dye Corp., New York, N. Y.
Stewart Ice Machine Co., Pomona, Calif.
Vogt Machine Co., Henry, Louisville, Ky.
Westinghouse Electric Corp., Sturtevant Div., Boston, Mass.
Wittenmeier Machinery Co., Chicago, Ill.
Worthington Corp., Harrison, N. J.
X L Refrigerating Co., Chicago, Ill.
York Corp., York, Pa.

CONDENSING UNITS, REFRIGERATING, OPEN

Consisting of compressor, condenser, motor, receiver and base
Brunner Mfg. Co., Utica, N. Y.
Copeland Refrigeration Corp., Sidney, O.

Curtis Refrigerating Machine Div., Curtis Mfg. Co., St. Louis, Mo.
 Dicler Div., General Machine & Mfg. Co., Berwick, Pa.
 Frick Co., Waynesboro, Pa.
 Frigidaire Div., General Motors Corp., Dayton, Ohio.
 Lehigh Mfg. Co., Lancaster, Pa.
 Lipman Refrigeration Div., Yates-American Machine Co., Beloit, Wis.
 Reliance Refrigerating Machine Co., Chicago, Ill.
 Tecumseh Products Co., Tecumseh, Mich.
 Trane Co., LaCrosse, Wis.
 Worthington Corp., Harrison, N. J.
 York Corp., York, Pa.

CONDENSING UNITS, REFRIGERATING, SEALED

Consisting of compressor, condenser, motor, receiver and base

Brunner Mfg. Co., Utica, N. Y.
 Carrier Corp., Syracuse, N. Y.
 Copeland Refrigeration Corp., Sidney, O.
 Frigidaire Div., General Motors Corp., Dayton, Ohio.
 Lehigh Mfg. Co., Lancaster, Pa.
 Servel, Inc., Evansville, Ind.
 Sutton Corp., O. A., Wichita, Kans.
 Tecumseh Products Co., Tecumseh, Mich.
 Westinghouse Elec. Corp., Sturtevant Div., Boston, Mass.
 Williamson Heater Co., Cincinnati, O.
 Worthington Corp., Harrison, N. J.
 York Corp., York, Pa.

CONDUCTOR PIPE AND FITTINGS

See Pipe and Fittings, Conductor

CONNECTIONS, DUCT, FLEXIBLE

American Metal Hose Branch, American Brass Co., Waterbury, Conn.
 Corbman Bros., Inc., Philadelphia, Pa.
 Duro-Dyne Corp., New Hyde Park, L. I., N. Y.
 Elgen Mfg. Corp., Long Island City, N. Y.
 Felters Co., Inc., Boston, Mass. (Felt)
 Flexible Tubing Corp., Guilford, Conn. (Coated Fabric)
 Flexonics Corp., Maywood, Ill.
 Iden Associates, Chicago, Ill.
 St. Clair Rubber Co., Marysville, Mich. (Fiberglass)
 Sall Mountain Co., Hamilton, O. (Asbestos)
 United States Rubber Co., New York, N. Y.
 Wagner Awning & Mfg. Co., Cleveland, Ohio.
 Wilson, Inc., Grant, Chicago, Ill. (Asbestos).
 Wiremold Co., Hartford, Conn.

CONNECTORS, METAL, FOR METAL DUCTS

Acme Mfg. Co., Philadelphia, Pa.
 Carolina Blowers Co., Inc., Greensboro, N. C.
 Corbman Bros., Inc., Philadelphia, Pa.
 Inland Steel Products Co., Milwaukee, Wis.
 Ralph Mfg. Co., Inc., Wadsworth, O.

CONTROLS, BLOWER, SPEED CHANGING

A-P Controls Corp., Milwaukee, Wis.
 Airgard Mfg. Co., Chicago, Ill.
 Ammerman Co., C. L., Minneapolis, Minn.
 Ballastran Corp., Ft. Wayne, Ind.
 Carvell Heat Equipment Co., Los Angeles, Calif.
 National Modulation Co., St. Paul, Minn.
 White-Rodgers Electric Co., St. Louis, Mo.

CONTROLS, COMBINATION FAN AND LIMIT, LINE OR LOW VOLTAGE

A-P Controls Corp., Milwaukee, Wis.
 Automatic Devices Co., Inc., Western Springs, Ill.
 Cam-Stat Inc., Div. Paul Henry Co., Los Angeles, Calif.
 Cook Electric Co., Chicago, Ill.
 Crise Controls Div. Acro Mfg. Co., Columbus, Ohio.
 Defender Instrument & Regulator Co., St. Louis, Mo.
 Detroit Controls Corp., Detroit, Mich.
 Ess Instrument Co., Bergenfield, N. J.
 General Controls Co., Glendale, Calif.
 General Electric Co., Apparatus Sales Div., Schenectady, N. Y.
 Iron Fireman Mfg. Co., Cleveland, Ohio.
 Mercoid Corp., Chicago, Ill.
 Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Penn Controls, Inc., Goshen, Ind.
 Perfex Corp., Milwaukee, Wis.
 Soreng Mfg. Co., Schiller Park, Ill.
 Standard Remote Control Valve Co., South Pasadena, Calif.
 Therm-O-Disc, Inc., Mansfield, Ohio.
 White-Rodgers Electric Co., St. Louis, Mo.

CONTROLS, COMBUSTION, LINE OR LOW VOLTAGE

Barber-Colman Co., Rockford, Ill.
 Bristol Co., Waterbury, Conn.
 Combustion Control Corp., Cambridge, Mass.
 Crown Controls Co., Inc., New Bremen, Ohio.
 Eclipse Fuel Engineering Co., Rockford, Ill.
 Electronic Products Co., St. Charles, Ill.
 General Controls Co., Glendale, Calif.
 Hays Corp., Michigan City, Ind.
 Iron Fireman Mfg. Co., Cleveland, Ohio.
 Mercoid Corp., Chicago, Ill.
 Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Penn Controls, Inc., Goshen, Ind.
 Perfex Corp., Milwaukee, Wis.
 Shallcross Controls, Inc., Milwaukee, Wis.
 White-Rodgers Electric Co., St. Louis, Mo.

CONTROLS, FAN

A-P Controls Corp., Milwaukee, Wis.
 Allen-Bradley Co., Milwaukee, Wis.
 Automatic Devices Co., Inc., Western Springs, Ill.
 Barber-Colman Co., Rockford, Ill.
 Cam-Stat, Inc., Div. Paul Henry Co., Los Angeles, Calif.
 Clark Controller Co., Cleveland, Ohio.
 Crise Controls Div. Acro Mfg. Co., Columbus, Ohio.
 Detroit Controls Corp., Detroit, Mich.
 General Controls Co., Glendale, Calif.
 Iron Fireman Mfg. Co., Cleveland, Ohio.
 McCorkle Co., D. H., Berkeley, Calif.
 Mercoid Corp., Chicago, Ill.
 Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Penn Controls, Inc., Goshen, Ind.
 Perfex Corp., Milwaukee, Wis.
 Spencer Thermostat Div. Metals & Controls Corp., Attleboro, Mass.
 Therm-O-Disc, Inc., Mansfield, Ohio.
 United Electric Controls Co., Watertown, Mass.
 White-Rodgers Electric Co., St. Louis, Mo.

CONTROLS, FUEL OIL, GRAVITY FLOW

A-P Controls Corp., Milwaukee, Wis. (Electric and manual)
 Detroit Controls Corp., Detroit, Mich. (Electric and manual)

CONTROLS, HUMIDISTATS

Abbeon Supply Co., Jamaica, N. Y.
 Barber-Colman Co., Rockford, Ill.
 Bristol Co., Waterbury, Conn.
 Fries Instrument Div., Bendix Aviation Corp., Baltimore, Md.
 General Controls Co., Glendale, Calif.
 H-B Instrument Co., Inc., Philadelphia, Pa.
 Johnson Service Co., Milwaukee, Wis.
 Maid-O-Mist, Inc., Chicago, Ill.
 Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Penn Controls, Inc., Goshen, Ind.
 Powers Regulator Co., Skokie, Ill.
 Taylor Instrument Companies, Rochester, N. Y.
 Walton Laboratories, Inc., Irvington, N. J.

CONTROLS, LIMIT, LINE OR LOW VOLTAGE

Allen-Bradley Co., Milwaukee, Wis.
 Au-Temp-Co Corp., New York, N. Y.
 Automatic Devices Co., Inc., Western Springs, Ill.
 Barber-Colman Co., Rockford, Ill.
 Cam-Stat Inc., Div. Paul Henry Co., Los Angeles, Calif.
 Crise Controls Div. Acro Mfg. Co., Columbus, Ohio.
 Crown Controls Co., Inc., New Bremen, Ohio.
 Custom Mfg. Co., Chicago, Ill.
 Detroit Controls Corp., Detroit, Mich.
 General Controls Co., Glendale, Calif.
 General Electric Co., Apparatus Sales Div., Schenectady, N. Y.
 Iron Fireman Mfg. Co., Cleveland, Ohio.
 McCorkle Co., D. H., Berkeley, Calif.
 Mercoid Corp., Chicago, Ill.
 Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Penn Controls, Inc., Goshen, Ind.
 Perfex Corp., Milwaukee, Wis.
 Spencer Thermostat Div. Metals & Controls Corp., Attleboro, Mass.
 Therm-O-Disc, Inc., Mansfield, Ohio.
 United Electric Controls Co., Watertown, Mass.
 Westinghouse Electric Corp., Pittsburgh, Pa.
 Weston Electrical Instruments Corp., Newark, N. J.
 White-Rodgers Electric Co., St. Louis, Mo.

CONTROLS, MOTORS, DUCT DAMPER, MODULATING OR PROPORTIONING

Automatic Temperature Control Co., Inc., Philadelphia, Pa.
Barber-Colman Co., Rockford, Ill.
Bristol Co., Waterbury, Conn.
General Blower Co., Inc., Philadelphia, Pa.
Heat-Timer Corp., New York, N. Y.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.

CONTROLS, MOTORS, DRAFT DAMPER, ELECTRICAL

Au-Temp-Co Corp., New York, N. Y.
Automatic Temperature Control Co., Inc., Philadelphia, Pa.
Barber-Colman Co., Rockford, Ill.
Crise Controls Div. Acro Mfg. Co., Columbus, Ohio.
Crown Controls Co., Inc., New Bremen, Ohio.
Defender Instrument & Regulator Co., St. Louis, Mo.
General Blower Co. Inc., Philadelphia, Pa.
Kol-Master Corp., Oregon, Ill.
Mercoid Corp., Chicago, Ill.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Penn Controls, Inc., Goshen, Ind.
Perflex Corp., Milwaukee, Wis.
Square D Co., Detroit, Mich.
White Mfg. Co., St. Paul, Minn.

CONTROLS, MOTORS, DUCT DAMPER, TWO POSITION

Au-Temp-Co Corp., New York, N. Y.
Automatic Temperature Control Co., Inc., Philadelphia, Pa.
Barber-Colman Co., Rockford, Ill.
Bristol Co., Waterbury, Conn.
Crise Controls, Div. Acro Mfg. Co., Columbus, Ohio.
Crown Controls Co., Inc., New Bremen, Ohio.
General Blower Co. Inc., Philadelphia, Pa.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Penn Controls, Inc., Goshen, Ind.
Perflex Corp., Milwaukee, Wis.

CONTROLS, PILOT, GAS BURNER

A-P Controls Corp., Milwaukee, Wis.
American Control Co., Compton, Calif.
Cleveland Heater Co., Cleveland, Ohio.
Continental Instrument Co., Cleveland, Ohio.
Drying Systems, Inc., Chicago, Ill.
Eclipse Fuel Engineering Co., Rockford, Ill.
Electronic Products Co., St. Charles, Ill.
General Controls Co., Glendale, Calif.
Mercoid Corp., Chicago, Ill.
Milwaukee Gas Specialty Co., Milwaukee, Wis.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Modern Materials, Inc., Northville, Mich.
Newell & Sons, Irwin, Pa.
Partlow Corp., New Hartford, N. Y.
Patrol Valve Co., Cleveland, Ohio.
Penn Controls, Inc., Goshen, Ind.
Perflex Corp., Milwaukee, Wis.
Roberts-Gordon Appliance Corp., Buffalo, N. Y.
Robertshaw Thermostat Div. Robertshaw-Fulton Controls Co., Youngwood, Pa.
Standard Remote Control Valve Co., Inc., South Pasadena, Calif.
Therm-O-Disc, Inc., Mansfield, Ohio.
Titan Valve & Mfg. Co., Cleveland, Ohio.
White-Rodgers Electric Co., St. Louis, Mo.
Zink Co., John, Tulsa, Okla.

CONTROLS, PRESSURE, REFRIGERATING

A-P Controls Corp., Milwaukee, Wis.
Allen-Bradley Co., Milwaukee, Wis.
Automatic Control Co., St. Paul, Minn.
Barber-Colman Co., Rockford, Ill.
Barksdale Valves, Los Angeles, Calif.
Cook Electric Co., Chicago, Ill.
Dietz Co., Henry G., Long Island City, N. Y.
Marsh Corp., Jas. P., Skokie, Ill.
McQuay-Norris Mfg. Co., St. Louis, Mo.
Mercoid Corp., Chicago, Ill.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Penn Controls, Inc., Goshen, Ind.
Ranco, Inc., Columbus, Ohio.
Shallcross Controls, Inc., Milwaukee, Wis.
Soreng Mfg. Co., Schiller Park, Ill.
Square D Co., Industrial Controller Div., Milwaukee, Wis.
White-Rodgers Electric Co., St. Louis, Mo.

CONTROLS, RELAYS, ELECTRICAL

Allen-Bradley Co., Milwaukee, Wis.
American Instrument Co., Inc., Silver Spring, Md.
Arrow-Hart & Hageman Electric Co., Hartford, Conn.
Au-Temp-Co Corp., New York, N. Y.
Automatic Electric Mfg. Co., Mankato, Minn.
Automatic Switch Co., Orange, N. J.
Automatic Temperature Control Co., Inc., Philadelphia, Pa.
B/W Controller Corp., Birmingham, Mich.
Barber-Colman Co., Rockford, Ill.
Burke Engineering Co., Los Angeles, Calif.
Clark Controller Co., Cleveland, Ohio.
Cooper Co., Clark, Palmyra, N. J.
Cramer Co., Inc., R. W., Centerbrook, Conn.
Cutler-Hammer, Inc., Milwaukee, Wis.
Detroit Controls Corp., Detroit, Mich.
Electronic Products Co., St. Charles, Ill.
Ess Instrument Co., Bergenfield, N. J.
General Controls Co., Glendale, Calif.
General Electric Co., Apparatus Sales Div., Schenectady, N. Y.
Guardian Electric Mfg. Co., Chicago, Ill.
Hart Mfg. Co., Hartford, Conn.
H-B Instrument Co., Philadelphia, Pa.
Industrial Engineering Corp., Terre Haute, Ind.
Iron Fireman Mfg. Co., Cleveland, Ohio.
McCorkle Co., D. H., Berkeley, Calif.
Mercoid Corp., Chicago, Ill.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Monitor Controller Co., The, Cambridge, Mass.
Penn Controls, Inc., Goshen, Ind.
Perflex Corp., Milwaukee, Wis.
Philadelphia Thermometer Co., Philadelphia, Pa.
Photoswitch Div., Electronics Corp. of America, Cambridge, Mass.
Precision Thermometer & Instrument Co., Philadelphia, Pa.
Reynolds Electric Co., River Grove, Ill.
Soreng Mfg. Co., Schiller Park, Ill.
Square D Co., Detroit, Mich.
Square D Co., Industrial Controller Div., Milwaukee, Wis.
Ward Leonard Electric Co., Mt. Vernon, N. Y.
Westinghouse Electric Corp., Pittsburgh, Pa.
Weston Electrical Instrument Corp., Newark, N. J.
White-Rodgers Electric Co., St. Louis, Mo.
Zenith Electric Co., Chicago, Ill.

CONTROLS, SWITCHES, MAGNETIC

ACEC Electric Corp., New York, N. Y.
Allen-Bradley Co., Milwaukee, Wis.
Arrow-Hart & Hageman Electric Co., Hartford, Conn.
Automatic Electric Mfg. Co., Mankato, Minn.
Automatic Switch Co., Orange, N. J.
B/W Controller Corp., Birmingham, Mich.
Barber-Colman Co., Rockford, Ill.
Clark Controller Co., Cleveland, Ohio.
Cutler-Hammer, Inc., Milwaukee, Wis.
Detroit Controls Corp., Detroit, Mich.
Electric Controller & Mfg. Co., Cleveland, Ohio.
Furnas Electric Co., Batavia, Ill.
General Controls Co., Glendale, Calif.
General Electric Co., Apparatus Sales Div., Schenectady, N. Y.
Guardian Electric Mfg. Co., Chicago, Ill.
H-B Instrument Co., Philadelphia, Pa.
Hart Mfg. Co., Hartford, Conn.
Industrial Engineering Corp., Terre Haute, Ind.
Mercoid Corp., Chicago, Ill.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Monitor Controller Co., The, Cambridge, Mass.
Palmer Electric Co., Chicago, Ill.
Penn Controls, Inc., Goshen, Ind.
Perflex Corp., Milwaukee, Wis.
Soreng Mfg. Co., Schiller Park, Ill.
Square D Co., Detroit, Mich.
Square D Co., Indus. Controller Div., Milwaukee, Wis.
Tork Clock Co., Inc., Mt. Vernon, N. Y.
Ward Leonard Electric Co., Mt. Vernon, N. Y.
Westinghouse Electric Corp., Pittsburgh, Pa.
White-Rodgers Electric Co., St. Louis, Mo.
Zenith Electric Co., Chicago, Ill.

CONTROLS, SWITCHES, MANUAL

ACEC Electric Corp., New York, N. Y.
Allen-Bradley Co., Milwaukee, Wis.
Arrow-Hart & Hageman Electric Co., Hartford, Conn.
Barber-Colman Co., Rockford, Ill.
Burke Engineering Co., Los Angeles, Calif.
Clark Controller Co., Cleveland, Ohio.
Cutler-Hammer, Inc., Milwaukee, Wis.
Furnas Electric Co., Batavia, Ill.

General Controls Co., Glendale, Calif.
 General Electric Co., Apparatus Sales Div., Schenectady, N. Y.
 Hart Mfg. Co., Hartford, Conn.
 Industrial Engineering Corp., Terre Haute, Ind.
 Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Soren Mfg. Co., Schiller Park, Ill.
 Square D Co., Detroit, Mich.
 Square D Co., Indus. Controller Div., Milwaukee, Wis.
 Ward Leonard Electric Co., Mount Vernon, N. Y.
 Westinghouse Electric Corp., Pittsburgh, Pa.

CONTROLS, SWITCHES, TIME

Allen-Bradley Co., Milwaukee, Wis.
 Au-Temp-Co Corp., New York, N. Y.
 Automatic Devices Co., Inc., Western Springs, Ill.
 Automatic Electric Mfg. Co., Mankato, Minn.
 Automatic Switch Co., Orange, N. J.
 Automatic Temperature Control Co., Inc., Philadelphia, Pa.
 Barber-Colman Co., Rockford, Ill.
 Bristol Co., Waterbury, Conn.
 Clark Controller Co., Cleveland, Ohio.
 Cooper Co., Clark, Palmyra, N. J.
 Cramer Co., Inc., The R. W., Centerbrook, Conn.
 General Controls Co., Glendale, Calif.
 General Electric Co., Apparatus Sales Div., Schenectady, N. Y.
 Industrial Engineering Corp., Terre Haute, Ind.
 International Register Co., Chicago, Ill.
 Iron Fireman Mfg. Co., Cleveland, O.
 Landis & Gyr, Inc., New York, N. Y.
 Mercoid Corp., Chicago, Ill.
 Miller-Harris Instrument Co., Milwaukee, Wis.
 Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Palo-Myers, Inc., New York, N. Y.
 Paragon Electric Co., Two Rivers, Wis.
 Perfex Corp., Milwaukee, Wis.
 Photoswitch Div., Electronics Corp. of America, Cambridge, Mass.
 R. B. Enterprises, Inc., Detroit, Mich.
 Reliance Automatic Lighting Co., Racine, Wis.
 Reynolds Electric Co., River Grove, Ill.
 Rhodes, Inc., M. H., Hartford, Conn.
 Sangamo Electric Co., Springfield, Ill.
 Telechron, Inc., Ashland, Mass.
 Tork Clock Co., Inc., Mt. Vernon, N. Y.
 Ward Leonard Electric Co., Mt. Vernon, N. Y.
 Westinghouse Electric Corp., Pittsburgh, Pa.
 White-Rodgers Electric Co., St. Louis, Mo.
 Zenith Electric Co., Chicago, Ill.

CONTROLS, THERMOSTATS, CLOCK, DAY AND NIGHT

Barber-Colman Co., Rockford, Ill.
 Crown Controls Co., Inc., New Bremen, Ohio.
 Detroit Controls Corp., Detroit, Mich.
 General Controls Co., Glendale, Calif.
 Heat-Timer Corp., New York, N. Y.
 Iron Fireman Mfg. Co., Cleveland, Ohio.
 McQuay-Norris Mfg. Co., St. Louis, Mo.
 Mercoid Corp., Chicago, Ill.
 Miller-Harris Instrument Co., Milwaukee, Wis.
 Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Penn Controls, Inc., Goshen, Ind.
 Perfex Corp., Milwaukee, Wis.
 Sarcotherm Controls, Inc., New York, N. Y.
 Tork Clock Co., Inc., Mt. Vernon, N. Y.
 White-Rodgers Electric Co., St. Louis, Mo.

CONTROLS, THERMOSTATS, DOMESTIC WATER HEATER

A-P Controls Corp., Milwaukee, Wis.
 American Control Co., Compton, Calif.
 American Instrument Co., Inc., Silver Spring, Md.
 Cam-Stat Inc., Div. Paul Henry Co., Los Angeles, Calif.
 Cleveland Heater Co., Cleveland, Ohio.
 Cutler-Hammer, Inc., Milwaukee, Wis.
 General Controls Co., Glendale, Calif.
 Hart Mfg. Co., Hartford, Conn.
 Hynes & Cox Electric Corp., Watervliet, N. Y.
 Iron Fireman Mfg. Co., Cleveland, Ohio.
 Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Perfex Corp., Milwaukee, Wis.
 Powers Regulator Co., Skokie, Ill.
 Robertshaw Thermostat Div., Robertshaw-Fulton Controls Co., Youngwood, Pa.
 Therm-O-Disc, Inc., Mansfield, Ohio.
 Titan Valve & Mfg. Co., Cleveland, Ohio.
 Westinghouse Electric Corp., Pittsburgh, Pa.

CONTROLS, THERMOSTATS, ELECTRONIC

Barber-Colman Co., Rockford, Ill.
 White-Rodgers Electric Co., St. Louis, Mo.

CONTROLS, THERMOSTATS, HEAT ACCELERATED OR ANTICIPATING

A-P Controls Corp., Milwaukee, Wis.
 Au-Temp-Co Corp., New York, N. Y.
 Barber-Colman Co., Rockford, Ill.
 Cooper Co., Clark, Palmyra, N. J.
 Crise Controls Div. Acro Mfg. Co., Columbus, Ohio.
 Crown Controls Co., Inc., New Bremen, Ohio.
 Detroit Controls Corp., Detroit, Mich.
 Fulton Sylphon Div. Robertshaw-Fulton Controls Co., Knoxville, Tenn.
 General Controls Co., Glendale, Calif.
 H-B Instrument Co., Philadelphia, Pa.
 Iron Fireman Mfg. Co., Cleveland, Ohio.
 Miles Heating Enterprises, Cleveland, O.
 Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Penn Controls, Inc., Goshen, Ind.
 Perfex Corp., Milwaukee, Wis.
 Sarcotherm Controls, Inc., New York, N. Y.
 White-Rodgers Electric Co., St. Louis, Mo.

CONTROLS, THERMOSTATS, LINE OR LOW VOLTAGE

A-P Controls Corp., Milwaukee, Wis.
 Allen-Bradley Co., Milwaukee, Wis.
 American Instrument Co., Inc., Silver Spring, Md.
 Au-Temp-Co Corp., New York, N. Y.
 Barber-Colman Co., Rockford, Ill.
 Cam-Stat Inc., Div. Paul Henry Co., Los Angeles, Calif.
 Crise Controls Div. Acro Mfg. Co., Columbus, Ohio.
 Crown Controls Co., Inc., New Bremen, Ohio.
 Detroit Controls Corp., Detroit, Mich.
 Fenwal Inc., Ashland, Mass.
 Fulton Sylphon Div., Robertshaw-Fulton Controls Co., Knoxville, Tenn.
 General Controls Co., Glendale, Calif.
 General Electric Co., Apparatus Sales Div., Schenectady, N. Y.
 H-B Instrument Co., Philadelphia, Pa.
 Iron Fireman Mfg. Co., Cleveland, Ohio.
 McCorkle Co., D. H., Berkeley, Calif.
 McQuay-Norris Mfg. Co., St. Louis, Mo.
 Mercoid Corp., Chicago, Ill.
 Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Penn Controls, Inc., Goshen, Ind.
 Perfex Corp., Milwaukee, Wis.
 Robertshaw Thermostat Div., Robertshaw-Fulton Controls Co., Youngwood, Pa.
 Sarco Co., Inc., New York, N. Y.
 Sarcotherm Controls, Inc., New York, N. Y.
 Soren Mfg. Co., Schiller Park, Ill.
 Spencer Thermostat Div. Metals & Controls Corp., Attleboro, Mass.
 Standard Remote Control Valve Co., South Pasadena, Calif.
 Therm-O-Disc, Inc., Mansfield, O.
 United Electric Controls Co., Watertown, Mass.
 Westinghouse Electric Corp., Pittsburgh, Pa.
 White-Rodgers Electric Co., St. Louis, Mo.

CONTROLS, THERMOSTATS, MODULATING OR PROPORTIONING

A-P Controls Corp., Milwaukee, Wis.
 Atlas Valve Co., Newark, N. J.
 Automatic Devices Co., Inc., Western Springs, Ill.
 Barber-Colman Co., Rockford, Ill.
 Defender Instrument & Regulator Co., St. Louis, Mo.
 Fenwal, Inc., Ashland, Mass.
 Fulton Sylphon Div., Robertshaw-Fulton Controls Co., Knoxville, Tenn.
 Johnson Service Co., Milwaukee, Wis.
 Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Powers Regulator Co., Skokie, Ill.
 Superior Controls Co., Inc., Los Angeles, Calif.
 White-Rodgers Electric Co., St. Louis, Mo.

CONTROLS, THERMOSTATS, WEATHER COMPENSATING

Automatic Devices Co., Inc., Weather Controls Div., Western Springs, Ill.
 Barber-Colman Co., Rockford, Ill.
 Detroit Controls Corp., Detroit, Mich.
 Heat-Timer Corp., New York, N. Y.
 Illinois Engineering Co., Chicago, Ill.
 Johnson Service Co., Milwaukee, Wis.

McLarty Systems, Battle Creek, Mich.
 Miller Heat-O-Meter Co., Milwaukee, Wis.
 Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Powers Regulator Co., Skokie, Ill.
 Sarcotherm Controls, Inc., New York, N. Y.
 United Electric Controls Co., Watertown, Mass.
 White-Rodgers Electric Co., St. Louis, Mo.

CONTROL SYSTEMS, ACCESSORIES

Terminals, terminal blocks, connectors, ignition cable, thermostat cable, etc.

Barber-Colman Co., Rockford, Ill.
 Buchanan Electric Products Corp., Hillside, N. J.

CONTROL SYSTEMS, FLAME FAILURE

American District Telegraph Co., New York, N. Y.
 Barber-Colman Co., Rockford, Ill.
 Bristol Co., The, Waterbury, Conn.
 Canton Stoker Corp., Canton, Ohio.
 Combustion Control Div., Electronics Corp. of America, Boston, Mass.
 De-Tec-Tronic Corp., Chicago, Ill.
 Drying Systems, Inc., Chicago, Ill.
 Eclipse Fuel Engineering Co., Rockford, Ill.
 Electronic Products Co., St. Charles, Ill.
 Ess Instrument Co., Bergenfield, N. J.
 Fuelguard Co., Dallas, Texas.
 General Electric Co., Apparatus Sales Div., Schenectady, N. Y.
 Haney Gas Burner & Engrs., Monrovia, Calif.
 Mercoid Corp., Chicago, Ill.
 Mettler Co., Inc., The, Los Angeles, Calif.
 Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Penn Controls, Inc., Goshen, Ind.

CONTROL SYSTEMS, GAS BURNER, COMPLETE ASSEMBLY

A-P Controls Corp., Milwaukee, Wis.
 Detroit Controls Corp., Detroit, Mich.
 Eclipse Fuel Engineering Co., Rockford, Ill.
 General Controls Co., Glendale, Calif.
 Haney Gas Burner & Engrs., Monrovia, Calif.
 Hays Corp., Michigan City, Ind.
 Iron Fireman Mfg. Co., Cleveland, O.
 Mettler Co., Inc., The, Los Angeles, Calif.
 Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Mueller Climatrol, Milwaukee, Wis.
 Penn Controls, Inc., Goshen, Ind.
 Perfex Corp., Milwaukee, Wis.
 R. B. Enterprises, Inc., Detroit, Mich.
 White-Rodgers Electric Co., St. Louis, Mo.

CONTROL SYSTEMS, GRAVITY FURNACE, HAND-FIRED, COMPLETE ASSEMBLY

Barber-Colman Co., Rockford, Ill.
 Bearlee Products Co., Green Bay, Wis.
 Crise Controls Div., Acro Mfg. Co., Columbus, Ohio.
 Crown Controls Co., New Bremen, Ohio.
 Defender Instrument & Regulator Co., St. Louis, Mo.
 General Controls Co., Glendale, Calif.
 Mercoid Corp., Chicago, Ill.
 Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Penn Controls, Inc., Goshen, Ind.
 Perfex Corp., Milwaukee, Wis.
 White-Rodgers Electric Co., St. Louis, Mo.

CONTROL SYSTEMS, HEATING, VENTILATING, AND AIR CONDITIONING, ELECTRICAL

Barber-Colman Co., Rockford, Ill.
 Burke Engineering Co., Los Angeles, Calif.
 Clark Controller Co., Cleveland, Ohio.
 Crise Controls Div., Acro Mfg. Co., Columbus, O.
 Ess Instrument Co., Bergenfield, N. J.
 General Controls Co., Glendale, Calif.
 Mercoid Corp., Chicago, Ill.
 Midwest Automatic Control Co., Des Moines, Iowa.
 Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Penn Controls, Inc., Goshen, Ind.
 Perfex Corp., Milwaukee, Wis.
 White-Rodgers Electric Co., St. Louis, Mo.

CONTROL SYSTEMS, OIL BURNER, COMPLETE ASSEMBLY

A-P Controls Corp., Milwaukee, Wis.
 Defender Instrument & Regulator Co., St. Louis, Mo.
 Detroit Controls Corp., Detroit, Mich.

Electronic Products Co., St. Charles, Ill.
 Ess Instrument Co., Bergenfield, N. J.
 General Controls Co., Glendale, Calif.
 General Electric Co., Apparatus Sales Div., Schenectady, N. Y.
 Hays Corp., Michigan City, Ind.
 Heat-Timer Corp., New York, N. Y.
 Iron Fireman Mfg. Co., Cleveland, O.
 Mercoid Corp., Chicago, Ill.
 Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Penn Controls, Inc., Goshen, Ind.
 Perfex Corp., Milwaukee, Wis.
 Shallcross Controls Inc., Milwaukee, Wis.
 Wheelco Instruments Div., Barber-Coleman Co., Rockford, Ill.
 White-Rodgers Electric Co., St. Louis, Mo.

CONTROL SYSTEMS, STOKER, COMPLETE ASSEMBLY

Defender Instrument & Regulator Co., St. Louis, Mo.
 Hays Corp., Michigan City, Ind.
 Heat-Timer Corp., New York, N. Y.
 Iron Fireman Mfg. Co., Cleveland, Ohio
 Mercoid Corp., Chicago, Ill.
 Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Palmer Electric Co., Chicago, Ill.
 Penn Controls, Inc., Goshen, Ind.
 Perfex Corp., Milwaukee, Wis.
 Shallcross Controls Co., Inc., Milwaukee, Wis.
 White-Rodgers Electric Co., St. Louis, Mo.

CONTROL SYSTEMS, WINTER AIR CONDITIONING FURNACE, HAND FIRED, COMPLETE ASSEMBLY

Barber-Colman Co., Rockford, Ill.
 Crown Controls Co., Inc., New Bremen, Ohio.
 General Controls Co., Glendale, Calif.
 Mercoid Corp., Chicago, Ill.
 Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Penn Controls, Inc., Goshen, Ind.
 Perfex Corp., Milwaukee, Wis.
 White-Rodgers Electric Co., St. Louis, Mo.

CONTROL SYSTEMS, ZONE, COMPLETE ASSEMBLY

Au-Temp-Co Corp., New York, N. Y.
 Barber-Colman Co., Rockford, Ill.
 Burke Engineering Co., Los Angeles, Calif.
 Crise Controls Div., Acro Mfg. Co., Columbus, Ohio.
 Dole Valve Co., Chicago, Ill.
 General Controls Co., Glendale, Calif.
 Heat-Timer Corp., New York, N. Y.
 Johnson Service Co., Milwaukee, Wis.
 Mercoid Corp., Chicago, Ill.
 Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Penn Controls, Inc., Goshen, Ind.
 Perfex Corp., Milwaukee, Wis.
 Powers Regulator Co., Skokie, Ill.
 Young Regulator Co., Cleveland, O.

COOLING COILS

See Coils, Cooling

COOLING UNITS

See Units, Air Conditioning

COOLING TOWERS

See Towers, Cooling

COPPER PIPE

See Tubing, Copper

COPPER SHEETS

See Sheets, Metal, Copper

COPPER TUBE FITTINGS

See Fittings, Copper Tube

CRIMPING MACHINES

See Machines, Crimping

CURTAIN WALL PANELS

See Panels, Curtain Wall

DAMPER, DUCT, REGULATOR SETS

See Regulators, Duct Damper Sets

DAMPER MOTORS

See Controls, Motors

DAMPERS, BACK DRAFT

See Louvers and Shutters

DAMPERS, DIFFUSER

Air Control Products, Inc., Coopersville, Mich.
Barber-Colman Co., Rockford, Ill.
Hart & Cooley Mfg. Co., Holland, Mich.
United States Register Co., Battle Creek, Mich.

DAMPERS, DRAFT, BAROMETRIC

Atlas Valve Co., Newark, N. J.
Boston Machine Works Co., Lynn, Mass.
Breese Burners, Inc., Santa Fe, N. Mex.
Cole-Sewell Engineering Co., St. Paul, Minn.
Combustion Equipment Co., Silvis, Ill.
Empire Ventilation Equipment Co., Long Island City, N. Y.
Field Control Div., H. D. Conkey & Co., Mendota, Ill.
Fuel Reduction Corp., Chicago, Ill.
Hotstream Heater Co., Cleveland, Ohio
James Regulator Co., Inc., Hamburg, Pa.
Jordan & Co., Inc., Paul R., Indianapolis, Ind.
Juniper Elbow Co., Inc., Middle Village, L. I., N. Y.
Krueger Sentry Gauge Co., Green Bay, Wis.
Perflex Corp., Milwaukee, Wis.
Preferred Utilities Mfg. Corp., New York, N. Y.
Shallcross Controls, Inc., Milwaukee, Wis.
Simplex Mfg. Co., Fond du Lac, Wis.
Steinen Mfg. Co., Wm., Newark, N. J.
Walker Mfg. & Sales Corp., St. Joseph, Mo.
Windmaster, Inc., Columbus, Ohio.

DAMPERS, DUCT

Air & Refrigeration Corp., New York, N. Y.
Berger Furnace Corp., Belle Vernon, Pa.
Connecticut State Furnace Co., Bridgeport, Conn.
Corbman Bros., Inc., Philadelphia, Pa.
Damp-Vent Co., Bettendorf, Ia.
Elgen Mfg. Corp., Long Island City, N. Y.
General Register Corp., Cedar Grove, N. J.
Johnson Service Co., Milwaukee, Wis.
United States Register Co., Battle Creek, Mich.
Waterloo Register Co., Inc., Waterloo, Iowa
Williamson Heater Co., Cincinnati, O.
Young Regulator Co., Cleveland, O.

DAMPERS, SMOKE PIPE

Adams Co., Dubuque, Iowa.
Berger Furnace Corp., Belle Vernon, Pa.
Buckeye Furnace Pipe Co., Columbus, Ohio.
Champion Furnace Pipe Co., Peoria, Ill.
Char-Gale Mfg. Co., Anoka, Minn.
Corbman Bros., Inc., Philadelphia, Pa.
Eselgroth & Co., Newark, N. J.
Front Rank Furnace Co., Div. Liberty Foundry Co., St. Louis, Mo.
Hotstream Heater Co., Cleveland, Ohio.
Howes-Woods Co., Cambridge, Mass.
J & J Sheet Metal Co., Van Dyke, Mich.
Keith Furnace Co., Des Moines, Iowa.
Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
Maple City Furnace Co., Monmouth, Ill.
Marshall Furnace Co., Marshall, Mich.
Mueller Climatrol, Milwaukee, Wis.
National Fuel Conservation Co., Inc., White Plains, N. Y.
Peerless Furnace and Foundry Co., Indianapolis, Ind.
Preferred Utilities Mfg. Corp., New York, N. Y.
Sheet Metal Mfg. Co., Inc., Brooklyn, N. Y.
Superior Metal Fabricating Co., Niles, O.
United States Register Co., Battle Creek, Mich.
Walker Mfg. & Sales Corp., St. Joseph, Mo.
Wheeling Corrugating Co., Wheeling, W. Va.
Wilder Products Co., Springfield, O.
Williamson Heater Co., Cincinnati, Ohio.

DAMPERS, STACK HEAD

Acme Furnace Fitting Co., Chicago, Ill.
Acme Mfg. Co., Philadelphia, Pa.
Air Control Products, Inc., Coopersville, Mich.

Aireflo Furnace Pipe Co., Brighton, Mich.
Barber-Colman Co., Rockford, Ill.
Buckeye Furnace Pipe Co., Columbus, Ohio.
Champion Furnace Pipe Co., Peoria, Ill.
Corbman Bros., Inc., Philadelphia, Pa.
Excelsior Steel Furnace Co., Chicago, Ill.
Inland Steel Products Co., Milwaukee, Wis.
J & J Sheet Metal Co., Van Dyke, Mich.
Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
Superior Metal Fabricating Co., Niles, O.
Truscon Steel Co., Youngstown, Ohio.
Williamson Heater Co., Cincinnati, O.

DAMPERS, WARM AIR PIPE

Acme Furnace Fitting Co., Chicago, Ill.
Acme Mfg. Co., Philadelphia, Pa.
Aireflo Furnace Pipe Co., Brighton, Mich.
Adams Co., Dubuque, Iowa.
Berger Furnace Corp., Belle Vernon, Pa.
Buckeye Furnace Pipe Co., Columbus, Ohio.
Champion Furnace Pipe Co., Peoria, Ill.
Char-Gale Mfg. Co., Anoka, Minn.
Corbman Bros., Inc., Philadelphia, Pa.
Excelsior Steel Furnace Co., Chicago, Ill.
Hart & Cooley Mfg. Co., Holland, Mich.
Inland Steel Products Co., Milwaukee, Wis.
J & J Sheet Metal Co., Van Dyke, Mich.
Lennox Furnace Co., Marshalltown, Iowa.
Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
Malco Products, Minneapolis, Minn.
Marshall Furnace Co., Marshall, Mich.
Peerless Foundry Co., Indianapolis, Ind.
Peerless Furnace and Foundry Co., Indianapolis, Ind.
Ralph Mfg. Co., Inc., Wadsworth, Ohio.
Sheet Metal Mfg. Co., Inc., Brooklyn, N. Y.
Standard Furnace Supply Co., Ltd., Omaha, Nebr.
Thor Metal Products Co., Inc., Syracuse, N. Y.
United States Register Co., Battle Creek, Mich.
Wheeling Corrugating Co., Wheeling, W. Va.
Williamson Heater Co., Cincinnati, Ohio.
Young Regulator Co., Cleveland, Ohio.

DECKING, ROOF, METAL

Airtherm Mfg. Co., St. Louis, Mo.
Ceco Steel Products Corp., Chicago, Ill.
Detroit Steel Products Co., Detroit, Mich.
Inland Steel Products Co., Milwaukee, Wis.
Mahon Co., R. C., Detroit, Mich.
Plasteel Products Corp., Washington, Pa.
Reflectal Corp., Subsidiary Borg-Warner Corp., Chicago, Ill.
(Aluminum)
Reynolds Metals Co., Louisville, Ky.
Robertson Co., H. H., Pittsburgh, Pa.
Truscon Steel Div., Republic Steel Corp., Youngstown, O.
United States Gypsum Co., Chicago, Ill.
Wheeling Corrugating Co., Wheeling, W. Va.

DEHUMIDIFIERS, ABSORPTION AND ADSORPTION

Abbeon Supply Co., Jamaica, N. Y.
Air Conditioning Engineering Co., Cambridge, Mass.
Air and Refrigeration Corp., New York, N. Y.
Bryant Heater Div. Affiliated Gas Equipment, Inc., Cleveland, Ohio. (Adsorption)
Carbide and Carbon Chemicals Co., Div. Union Carbide & Chemical Corp., New York, N. Y. (Triethylene glycol)
Cargocaire Engineering Corp., New York, N. Y.
Carrier Corp., Syracuse, N. Y.
Daly, Merritt & Sullivan, Inc., Falls Church, Va.
Dryomatic Corp., Alexandria, Va.
Floridin Co., Tallahassee, Fla.
Kauffman Air Conditioning Corp., St. Louis, Mo.
Kaufman Co., H. J., Detroit, Mich. (Absorption)
Lonergan Mfg. Co., Albion, Mich.
Pittsburgh Lector dryer Corp., Pittsburgh, Pa.
Rodgers Diesel & Air Craft Corp., New York, N. Y.
Solvay Process Div., Allied Chemical & Dye Corp., New York, N. Y.
Surface Combustion Corp., Toledo, Ohio.
Tamm Industries Inc., Chicago, Ill.
York Corp., York, Pa.

DEHUMIDIFIERS, REFRIGERATING TYPE, PORTABLE

Abbeon Supply Co., Jamaica, N. Y.
Blissfield Mfg. Co., Blissfield, Mich.
Cargocaire Engineering Corp., New York, N. Y.

Ebco Mfg. Co., Columbus, Ohio.
 Electrovent Fan & Mfg. Co., Chicago, Ill.
 Fedders-Quigan Corp., Buffalo, N. Y.
 Fresh'nd-Aire Co., Div. of Cory Corp., Chicago, Ill.
 Frigidaire Div., General Motors Corp., Dayton, O.
 Haertel Co., Walter, Minneapolis, Minn.
 Hotpoint Co., Chicago, Ill.
 Jordon Refrigerator Co., Inc., Philadelphia, Pa.
 Kauffman Air Conditioning Co., St. Louis, Mo.
 Lonergan Mfg. Co., Albion, Mich.
 Meier Electric & Machine Co., Inc., Indianapolis, Ind.
 Mitchell Mfg. Co., Chicago, Ill.
 Mueller Climatrol, Milwaukee, Wis.
 Remington Air Conditioning Div., Remington Corp., Auburn, N. Y.
 Victor Products Corp., Hagerstown, Md.
 Walton Laboratories, Inc., Irvington, N. J.
 Westinghouse Elec. Corp., Elec. Appliance Div., Springfield, Mass.

DEHYDRATORS, REFRIGERANT

A-P Controls Corp., Milwaukee, Wis.
 Ansul Chemical Co., Refrigeration Div., Marinette, Wis.
 Eagle Chemical Co., Inc., Chicago, Ill.
 Henry Valve Co., Melrose Park, Ill.
 Highside Chemicals Co., Clifton, N. J.
 Imperial Brass Mfg. Co., Chicago, Ill.
 Kenmore Machine Products, Inc., Lyons, N. Y.
 McIntire Co., The, Livingston, N. J.
 Mueller Brass Co., Port Huron, Mich.
 Remco, Inc., Zelenople, Pa.
 Selas Corp. of America, Philadelphia, Pa.
 Sporlan Valve Co., St. Louis, Mo.
 Superior Valve and Fittings Co., Pittsburgh, Pa.
 Techniflex Corp., Port Jervis, N. Y.
 Wabash Mfg. Co., Chicago, Ill.

DETECTORS, LEAK, REFRIGERANT

Bernz Co., Otto, Rochester, N. Y.
 Gates & Co., Inc., George W., Franklin Sq., L. I., N. Y.
 Highside Chemicals Co., Clifton, N. J.
 Justrite Mfg. Co., Chicago, Ill.
 Linde Air Products Co., Div. Union Carbide & Carbon Corp., New York, N. Y.
 Vacuum-Electronic Engineering Co., New Hyde Park, N. Y.
 Velocity-Power Tool Co., Pittsburgh, Pa.

DIES

See Machines, Sheet Metal Working, Presses (and Dies)

DIES, PRESS BRAKE

Doelger & Kirsten, Inc., Milwaukee, Wis.
 Dreis & Krump Mfg. Co., Chicago, Ill.

DIFFUSERS, AIR, BASEBOARD

A & A Register Co., Cleveland, O.
 Air Control Products, Inc., Coopersville, Mich.
 Air Devices, Inc., New York, N. Y.
 Auer Register Co., Cleveland, O.
 Berger Furnace Corp., Belle Vernon, Pa.
 Brandes Co., Madison, Wis.
 Char-Gale Mfg. Co., Anoka, Minn.
 Coleman Co., Inc., Wichita, Kans.
 Crane Co., Chicago, Ill.
 General Automatic Products Corp., Baltimore, Md.
 Gerwin Industries, Thermo-Base Div., Michigan City, Ind.
 Hart & Cooley Mfg. Co., Holland, Mich.
 Hayes Products Co., Portsmouth, Va.
 Heating Assurance, Inc., Spokane, Wash.
 Independent Register Co., Cleveland, O.
 Jettronaire, Inc., Pittsburgh, Pa.
 Kalamazoo Furnace & Appliance Mfg. Co., Kalamazoo, Mich.
 Lima Register Co., Lima, Ohio
 Midco Register Corp., St. Paul, Minn.
 National Grille & Register Co., Cleveland, O.
 Patco Mfg. Co., Philadelphia, Pa.
 Premier Furnace Co., Dowagiac, Mich.
 Radiant-Aire Corp., Michigan City, Ind.
 Republic Products Co., Philadelphia, Pa.
 Roberts Co., S. R., Marshall, Mich.
 Rock Island Register Co., Rock Island, Ill.
 Standard Stamping & Perforating Co., Chicago, Ill.
 Sundstrom Pressed Steel, Chicago, Ill.
 Thermo-Products, Inc., North Judson, Ind.
 Titus, Inc., Waterloo, Ia.
 Titus Mfg. Corp., Waterloo, Iowa

United States Register Co., Battle Creek, Mich.
 Vectaire Mfg. Co., Melrose, Mass.
 Viking Mfg. Corp., Cleveland, O.
 York-Shipley, Inc., York, Pa.

DIFFUSERS, AIR, CEILING

A & A Register Co., Cleveland, Ohio.
 Air Control Products, Inc., Coopersville, Mich.
 Air Devices, Inc., New York, N. Y.
 Airfan Engineering Co., Los Angeles, Calif.
 Aladdin Heating Corp., Oakland, Calif.
 Anemostat Corp. of America, New York, N. Y.
 Ashburn Supply Co., Culver City, Calif.
 Barber-Colman Co., Rockford, Ill.
 Carnes Corp., Verona, Wis.
 Char-Gale Mfg. Co., Anoka, Minn.
 Coleman Co., Inc., Wichita, Kans.
 Connor Engineering Corp., Danbury, Conn.
 Demuth & Sons, Inc., Charles, Mineola, L. I., N. Y.
 Hart & Cooley Mfg. Co., Holland, Mich.
 Independent Register Co., Cleveland, O.
 Krueger Air Conditioning Co., Tucson, Ariz.
 Lima Register Co., Lima, Ohio.
 Midco Register Corp., St. Paul, Minn.
 Pyle-National Co., Multi-Vent Div., Chicago, Ill.
 Titus, Inc., Waterloo, Iowa.
 Titus Mfg. Corp., Waterloo, Iowa.
 Tuttle & Bailey, Inc., New Britain, Conn.
 Universal Diffuser Corp., New York, N. Y.
 United States Register Co., Battle Creek, Mich.
 Wilster, Inc., Cleveland, Ohio.

DIFFUSERS, AIR, FLOOR

A & A Register Co., Cleveland, O.
 A-J Mfg. Co., Kansas City, Mo.
 Air Control Products, Inc., Coopersville, Mich.
 Auer Register Co., Cleveland, O.
 Char-Gale Mfg. Co., Anoka, Minn.
 Crane Co., Chicago, Ill.
 Hart & Cooley Mfg. Co., Holland, Mich.
 Independent Register Co., Cleveland, O.
 Lima Register Co., Lima, O.
 Midco Register Corp., St. Paul, Minn.
 Rock Island Register Co., Rock Island, Ill.
 United States Register Co., Battle Creek, Mich.
 Viking Mfg. Corp., Cleveland, O.

DIFFUSERS, AIR, LIGHTING FIXTURE COMBINATION

Air Devices, Inc., New York, N. Y.
 Anemostat Corp. of America, New York, N. Y.
 Barber-Colman Co., Rockford, Ill.
 Connor Engineering Corp., Danbury, Conn.
 Demuth & Sons, Inc., Charles, Mineola, L. I., N. Y.
 Universal Diffuser Corp., New York, N. Y.

DIFFUSERS, AIR, WALL

A & A Register Co., Cleveland, O.
 A-J Mfg. Co., Kansas City, Mo.
 Air Control Products, Inc., Coopersville, Mich.
 Air Devices, Inc., New York, N. Y.
 Anemostat Corp. of America, New York, N. Y.
 Auer Register Co., Cleveland, O.
 Barber-Colman Co., Rockford, Ill.
 Char-Gale Mfg. Co., Anoka, Minn.
 Coleman Co., Inc., Wichita, Kans.
 General Automatic Products Corp., Baltimore, Md.
 General Electric Co., Air Cond. Div., Bloomfield, N. J.
 Hart & Cooley Mfg. Co., Holland, Mich.
 Independent Register Co., Cleveland, O.
 Kalamazoo Furnace & Appliance Mfg. Co., Kalamazoo, Mich.
 Lima Register Co., Lima, O.
 Midco Register Corp., St. Paul, Minn.
 National Grille & Register Co., Cleveland, O.
 Radiant-Aire Corp., Michigan City, Ind.
 Rock Island Register Co., Rock Island, Ill.
 Standard Stamping & Perforating Co., Chicago, Ill.
 Titus Mfg. Corp., Waterloo, Ia.
 United States Register Co., Battle Creek, Mich.
 Universal Diffuser Corp., New York, N. Y.
 Waterloo Register Co., Inc., Waterloo, Ia.

DOORS, CLEANOUT

Adams Co., The, Dubuque, Ia.
 Majestic Co., Inc., Huntington, Ind.
 Wilder Products Co., Springfield, O.

DOORS, SAFETY, FOR FURNACES

Leisur-Maid Mfg. Corp., Grand Rapids, Mich.
Liberty Combustion Corp., Syracuse, N. Y.

DOWNSPOUTING AND FITTINGS

See Pipe and Fittings, Conductor

DRAFT BOOSTERS, MECHANICAL

For Increasing Chimney Capacity

Ammerman Co., C. L., Minneapolis, Minn.
Breese Burners, Santa Fe, N. M.
Brumme Mfg. Co., Bloomington, Ill.
Mueller Climatrol, Milwaukee, Wis.
Quickdraft Co., Div. Herring-Hall-Marvin Safe Co., Hamilton, O.

DRAFT DIVERTERS, GAS HEATER

Acme Mfg. Co., Philadelphia, Pa.
Adelta Mfg. Co., Inc., Philadelphia, Pa.
Banner Burner Co., Youngstown, Ohio.
Berger Furnace Corp., Belle Vernon, Pa.
Buckeye Furnace Pipe Co., Columbus, Ohio.
Cleveland Heater Co., Cleveland, Ohio.
Excelsior Steel Furnace Co., Chicago, Ill.
Famous Furnace Co., Cleveland, Ohio.
Finger, Joe, Cleveland, Ohio.
Hotstream Heater Co., Cleveland, Ohio.
Inland Steel Products Co., Milwaukee, Wis.
J & J Sheet Metal Co., Van Dyke, Mich.
Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
Maysteel Products, Inc., Milwaukee, Wis.
Payne Furnace Div. Affiliated Gas Equipment, Inc., Monrovia, Calif.
Sure Comfort Furnace Co., Forest Park, Ill.
Tri-State Heating Supply, Inc., Fort Wayne, Ind.
Waverly Heating Supply Co., Boston, Mass.
Wilder Mfg. Co., Niles, Ohio.
Wilder Products Co., Springfield, Ohio.
Williamson Heater Co., Cincinnati, Ohio.

DRAFT GAGES

See Gages, Draft

DRAFT REGULATORS

See Regulators, Furnace Draft, Mechanical; Dampers, Draft, Barometric; Controls, Motors, Draft Damper

DRILLS, ELECTRIC AND PNEUMATIC, PORTABLE

Air-Speed Tool Co., Los Angeles, Calif. (Pneumatic)
Albertson & Co., Inc., Sioux City, Iowa.
Black & Decker Mfg. Co., Towson, Md. (Electric, Portable)
Buffalo Forge Co., Buffalo, N. Y.
Chicago Pneumatic Tool Co., New York, N. Y.
Clark, Jr., Electric Co., Jas., Louisville, Ky.
Delta Power Tool Div., Rockwell Mfg. Co., Pittsburgh, Pa. (Electric)
Ingersoll-Rand Co., New York, N. Y. (Pneumatic)
Keller Tool Co., Grand Haven, Mich. (Pneumatic)
Mall Tool Co., Chicago, Ill. (Electric)
Millers Falls Co., Greenfield, Mass.
Milwaukee Electric Tool Corp., Milwaukee, Wis. (Elec.)
Oster Mfg. Co., John, Milwaukee, Wis. (Electric)
Phillips Drill Co., Michigan City, Ind. (Electric)
Portable Electric Tools, Inc., Chicago, Ill. (Electric)
Porter-Cable Machine Co., Syracuse, N. Y. (Electric)
Rotor Tool Co., Cleveland, Ohio. (Pneumatic & electric)
Skil Corporation, Chicago, Ill. (Electric & pneumatic)
Small Motors, Inc., Chicago, Ill. (Electric)
Snap-on Tools Corp., Kenosha, Wis. (Electric)
Stanley Electric Tool Div., Stanley Works, New Britain, Conn. (Electric)
Stow Mfg. Co., Binghamton, N. Y. (Electric-flexible shaft)
Syntron Co., Homer City, Pa. (Electric)
Thor Power Tool Co., Aurora, Ill. (Electric & Pneumatic)
U.S. Electrical Tool Div., Emerson Electric Co., St. Louis, Mo. (Electric)
Wodack Electric Tool Corp., Chicago, Ill. (Electric)

DRIVE CLEATS

See Connectors, Metal

DRYERS, FURNACE TYPE

Campbell Heating Co., Des Moines, Iowa.
Jackson & Church Co., Saginaw, Mich.
Link-Belt Co., Chicago, Ill.

DUCT ACCESSORIES

Angles, Boots, Heads, Joints, Offsets, Tees, etc.

Acer & Whedon, Inc., Medina, N. Y.
Acme Furnace Fitting Co., Chicago, Ill.
Acme Mfg. Co., Philadelphia, Pa.
Adelta Mfg. Co., Inc., Philadelphia, Pa.
Aireflo Furnace Pipe Co., Brighton, Mich.
Ajax Furnace Fitting Co., Div. Cincinnati Sheet Metal & Roofing Co., Cincinnati, Ohio.
American Metal Products, Los Angeles, Calif.
Ashburn Supply Co., Culver City, Calif.
Beckett & Co., Thomas, Dallas, Texas.
Berger Furnace Corp., Belle Vernon, Pa.
Bergstrom Mfg. Corp., Neenah, Wis.
Bieler & Son, Long Island City, N. Y. (Adjustable elbows).
Buckeye Furnace Pipe Co., Columbus, Ohio.
Champion Furnace Pipe Co., Peoria, Ill.
Char-Gale Mfg. Co., Anoka, Minn.
Cincinnati Stamping & Furnace Co., Cincinnati, Ohio.
Clayton & Lambert Mfg. Co., Louisville, Ky.
Coleman Co., Inc., Wichita, Kans.
Corbman Bros., Inc., Philadelphia, Pa.
Crane Co., Chicago, Ill.
Detroit Safety Furnace Pipe Co., Detroit, Mich.
Duc-Pac Div., Swett Bros., Springfield, Mass.
Eisbach, Albert N., Dubuque, Iowa. (Elbows)
Enderle Inc., Ltd., Frank X., Los Angeles, Calif.
Excelsior Steel Furnace Co., Chicago, Ill.
Gary Steel Products Co., Gary, Ind.
Green Colonial Furnace Co., Des Moines, Iowa.
Heil Process Equipment Corp., Cleveland, O.
Henry Furnace Co., Medina, Ohio.
Home Furnace Co., Holland, Mich.
Howes-Woods Co., Cambridge, Mass.
Hugert Mfg. Co., Medina, Ohio.
Inland Steel Products Co., Milwaukee, Wis.
International Heater Co., Utica, N. Y.
J & J Sheet Metal Co., Van Dyke, Mich. (Elbows)
Jettroaire, Inc., Pittsburgh, Pa.
Juniper Elbow Co., Inc., Middle Village, L. I., N. Y.
Keith Furnace Co., Des Moines, Iowa.
La Crosse Steel Roofing & Corrugating Co., La Crosse, Wis. (Elbows)
Lennox Furnace Co., Marshalltown, Iowa.
Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
Lyman Co., H. B., Southampton, Mass.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Made-Rite Co., Inc., Newport, Ky.
Maple City Furnace Co., Monmouth, Ill.
Marshall Furnace Co., Marshall, Mich.
Metal Fabricators, Inc., Charlotte, N. C.
Metalmen, Inc., Chicago, Ill.
Meyer & Bro. Co., F. Peoria, Ill.
Moncrief Furnace Co., Atlanta, Ga.
Montag Stove & Furnace Works, Portland, Ore.
Mueller Climatrol, Milwaukee, Wis.
Northwest Metal Products, Inc., Seattle, Wash.
Norwalk Air Conditioning Corp., South Norwalk, Conn.
Ohio Valley Hardware Co., Inc., Evansville, Ind.
Olsen Mfg. Co., C. A., Elyria, Ohio.
Peerless Furnace and Foundry Co., Indianapolis, Ind.
Penn Supply & Metal Corp., Philadelphia, Pa.
Perfection Furnace Pipe Co., Toledo, Ohio.
Portland Stove Foundry Co., Portland, Maine.
Premier Furnace Co., Dowagiac, Mich.
Quality Heating Supply Co., Cincinnati, O.
Ralph Mfg. Co., Inc., Wadsworth, Ohio.
Reeves Steel & Mfg. Co., Dover, Ohio.
Rock Island Register Co., Rock Island, Ill.
Roofing & Supply Co., Chattanooga, Tenn.
Round Oak Co., Inc., Dowagiac, Mich.
St. Clair Metal Products Co., Cleveland, O.
Schechter Bros. Co., Philadelphia, Pa.
Sheet Metal Mfg. Co., Inc., Brooklyn, N. Y.
Sioux Steel Co., Sioux Falls, S. D.
Souther Iron Co., E. E., St. Louis, Mo.
Standard Furnace Supply Co., Ltd., Omaha, Nebr.
Stratton & Terstegge Co., Louisville, Ky.
Superior Metal Fabricating Co., Niles, O.
Superior Products Co., Omaha, Nebr.
Superior Safety Furnace Pipe Co., Detroit, Mich.
Tri-State Heating, Inc., Detroit Lakes, Minn.
Tri-State Heating Supply, Inc., Fort Wayne, Ind.
United States Register Co., Battle Creek, Mich. (Elbows & angles)
Viking Mfg. Corp., Cleveland, O.
Waverly Heating supply Co., Boston, Mass.

Wheeling Corrugating Co., Wheeling, W. Va.
 Wheelock Co., Geo. F., Birmingham, Ala.
 Wilder Products Co., Springfield, Ohio.
 Williamson Heater Co., Cincinnati, Ohio.
 Youngstown Furnace Co., Youngstown, Ohio.

DUCT ANCHORS

See Anchors, Duct and Pipe

DUCT FITTING HARDWARE

See Hardware, Duct Fitting

DUCT INSULATION

See Insulation, Duct

DUCT, PREFABRICATED, METAL

Acer & Whedon, Inc., Medina, N. Y.
 Acme Mfg. Co., Philadelphia, Pa.
 Acme Steel Co., Chicago, Ill. (Flexible)
 Adelta Mfg. Co., Inc., Philadelphia, Pa.
 Aireflo Furnace Pipe Co., Brighton, Mich.
 Ajax Furnace Fitting Co., Div. Cincinnati Sheet Metal & Roofing Co., Cincinnati, Ohio.
 Beckett & Co., Thomas, Dallas, Texas.
 Berger Furnace Corp., Belle Vernon, Pa.
 Buckeye Furnace Pipe Co., Columbus, Ohio.
 Champion Furnace Pipe Co., Peoria, Ill.
 Chandler Co., Cedar Rapids, Iowa.
 Char-Gale Mfg. Co., Anoka, Minn.
 Chicago Furnace Supply Co., Chicago, Ill.
 Clayton & Lambert Mfg. Co., Louisville, Ky.
 Coleman Co., Inc., Wichita, Kans.
 Connecticut State Furnace Co., Bridgeport, Conn.
 Corbman Bros., Inc., Philadelphia, Pa.
 Cross & Currier Mfg. Co., Inc., Claremont, N. H.
 Detroit Safety Furnace Pipe Co., Detroit, Mich.
 Duc-Pac Div., Sweet Bros., Springfield, Mass.
 Enderle, Inc., Ltd., Frank X., Los Angeles, Calif.
 Excelsior Steel Furnace Co., Chicago, Ill.
 Excelsior Stove & Mfg. Co., Quincy, Ill.
 Flexonics Corp., Chicago, Ill.
 Gary Steel Products Co., Gary, Ind.
 General Automatic Products Corp., Baltimore, Md.
 Grand Island Furnace & Supply Co., Grand Island, Nebr.
 Gray Metal Products, Inc., Rochester, N. Y.
 Henry Furnace Co., Medina, Ohio.
 Howes-Woods Co., Cambridge, Mass.
 Inland Steel Products Co., Milwaukee, Wis.
 International Heater Co., Utica, N. Y.
 J & J Sheet Metal Co., Van Dyke, Mich.
 Jetronaire, Inc., Pittsburgh, Pa.
 Keith Furnace Co., Des Moines, Iowa.
 Lennox Furnace Co., Marshalltown, Iowa.
 Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
 Lumm Co., A. H., Toledo, O.
 Made-Rite Co., Inc., Newport, Ky.
 Marshall Furnace Co., Marshall, Mich.
 Metal Fabricators, Inc., Charlotte, N. C.
 Metalmen, Inc., Chicago, Ill.
 Meyer & Bro. Co., F., Peoria, Ill.
 Moncrief Furnace Co., Atlanta, Ga.
 Montag Stove & Furnace Works, Portland, Ore.
 Mueller Climatrol, Milwaukee, Wis.
 Northwest Metal Products, Inc., Seattle, Wash.
 Norwalk Air Conditioning Corp., South Norwalk, Conn.
 Ohio Valley Hardware Co., Inc., Evansville, Ind.
 Peerless Furnace and Foundry Co., Indianapolis, Ind.
 Perfection Furnace Pipe Co., Toledo, Ohio.
 Ralph Manufacturing Co., Inc., Wadsworth, Ohio.
 Round Oak Co., Inc., Dowagiac, Mich.
 St. Clair Metal Products Co., Cleveland, O.
 Schecter Bros. Co., Philadelphia, Pa.
 Sioux Steel Co., Sioux Falls, S. D.
 Standard Furnace Supply Co., Ltd., Omaha, Nebr.
 Straitsville Brick Co., New Straitsville, O.
 Stratton & Terstegge Co., Inc., Louisville, Ky.
 Superior Coated Specialties, Berwyn, Ill.
 Superior Metal Fabricating Co., Niles, O.
 Superior Safety Furnace Pipe Co., Detroit, Mich.
 Thor Metal Products Co., Inc., Syracuse, N. Y.
 Tri-State Heating Supply, Inc., Fort Wayne, Ind.
 United States Register Co., Battle Creek, Mich.
 Viking Mfg. Corp., Cleveland, Ohio.
 Waverly Heating Supply Co., Boston, Mass.
 Williamson Heater Co., Cincinnati, Ohio.
 Youngstown Furnace Co., Youngstown, Ohio.

DUCT, PREFABRICATED, NON-METALLIC

Airfloor of America, Culver City, Calif.
 American Agile Corp., Bedford, Ohio. (Plastic)
 Aqua-Therm, Inc., Dayton, O.
 Cannelton Sewer Pipe Co., RadianTile Div., Cannelton, Ind. (clay)
 Carey Mfg. Co., Philip, Cincinnati, Ohio.
 Coward-Eastman Co., Philadelphia, Pa. (Plastic)
 Flexible Tubing Corp., Guilford, Conn. (Fabric)
 Harvey-Whipple, Inc., Springfield, Mass.
 Haveg Corp., Newark, Del. (Plastic)
 Heil Process Equipment Corp., Cleveland, O.
 Johns-Manville, New York, N. Y.
 Lumm Co., A. H., Toledo, Ohio. (Asbestos cement board)
 Price Bros., Flexicore Div., Dayton, Ohio. (Concrete)
 Republic Rubber Div., Lee Rubber & Tire Corp., Youngstown, O.
 Round Tube and Cores Co., Chicago, Ill. (Fiber)
 Sonoco Products Co., Construction Products Div., Hartsville, S. C. (Fiber)
 United States Rubber Co., New York, N. Y.
 Van Dorn Iron Works, Cleveland, O. (Plastic)

DUCT TURNING VANES

See Vanes, Duct Turning

DUST COLLECTORS

See Collectors, Blow Pipe

EAVES TROUGH AND FITTINGS

See Gutters; Gutter Accessories

ELBOW MACHINES

See Machines, Elbow

ELECTRIC AIR CLEANERS

See Filters, Air, Electrostatic

ELECTRIC MOTORS

See Motors, Electric

ELECTRIC WATER HEATERS

See Heaters, Water, Storage Type, Domestic, Electric

ELECTRIC WELDERS

See Welders

ENCLOSURES, RADIATOR

Wallace & Gale Co., Baltimore, Md.

EVAPORATIVE COOLERS

*See Units, Air Conditioning, Central Plant, Evaporative Type.
 Also Units, Air Conditioning, Room Type, Evaporative*

EXCHANGERS, HEAT, REFRIGERANT SUCTION LINE

Brown Fintube Co., The, Elyria, O.
 Doyle & Roth Mfg. Co., Brooklyn, N. Y.
 Gerstein & Cooper Co., Inc., South Boston, Mass.
 Heat-X-Changer Co., Inc., The, Brewster, N. Y.
 Kenmore Machine Products, Inc., Lyons, N. Y.
 Kramer Trenton Co., Trenton, N. J.
 Mueller Brass Co., Port Huron, Mich.
 Superior Valve and Fittings Co., Pittsburgh, Pa.
 Techniflex Corp., Port Jervis, N. Y.
 Temprite Products Corp., Birmingham, Mich.
 Wabash Mfg. Co., Chicago, Ill.

EXPANSION BOLTS

See Bolts, Expansion

FACES, RETURN AIR, METAL

A & A Register Co., Cleveland, Ohio.
 A-J Mfg. Co., Kansas City, Mo.
 Air Control Products, Inc., Coopersville, Mich.
 Auer Register Co., Cleveland, Ohio.
 Barber-Colman Co., Rockford, Ill.
 Berger Furnace Corp., Belle Vernon, Pa.
 Char-Gale Mfg. Co., Anoka, Minn.
 Controlair Mfg. Co., Los Angeles, Calif.
 Diamond Mfg. Co., Wyoming, Pa.

General Register Corp., Cedar Grove, N. J.
 Harrington & King Perforating Co., Chicago, Ill.
 Hart & Cooley Mfg. Co., Holland, Mich.
 Hendrick Mfg. Co., Carbondale, Pa.
 Independent Register Co., Cleveland, Ohio.
 Juniper Elbow Co., Inc., Middle Village, L. I., N. Y.
 Lima Register Co., Lima, Ohio.
 Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
 Midco Register Corp., St. Paul, Minn.
 Mundt & Sons, Charles, Jersey City, N. J.
 Register & Grille Mfg. Co., Inc., Brooklyn, N. Y.
 Rock Island Register Co., Rock Island, Ill.
 Standard Stamping & Perforating Co., Chicago, Ill.
 Stewart Mfg. Co., Cedar Grove, N. J.
 Tuttle & Bailey, Inc., New Britain, Conn.
 United States Register Co., Battle Creek, Mich.
 Viking Mfg. Corp., Cleveland, O.

FACES, RETURN AIR, WOOD

Marsh Lumber Co., Inc., Dover, Ohio.

FAN CONTROLS

See Controls, Fan

FAN HOUSINGS

See Housings, Blower and Fan

FANS, PROPELLER TYPE, AXIAL FLOW

Aerovent Fan Co., Piqua, Ohio.
 American Blower Corp., Detroit, Mich.
 Ammerman Co., C. L., Minneapolis, Minn.
 Bertram Co., Harvey P., Cincinnati, Ohio.
 Blower Application Co., Milwaukee, Wis.
 Brookside Products Co., Inc., McCordsville, Ind.
 Buffalo Forge Co., Buffalo, N. Y.
 Century Fan & Ventilator Co., Stamford, Conn.
 Chicago Blower Corp., Franklin Park, Ill.
 Cook Co., Loren, Berea, Ohio.
 Dana Fan & Blower Corp., Cincinnati, Ohio.
 De Bothezat Fans Div., American Machine & Metals, Inc., East Moline, Ill.
 Filkins, Inc., Edward, Chicago, Ill.
 Frigid, Inc., Brooklyn, N. Y.
 General Blower Co., Morton Grove, Ill.
 Hartzell Propeller Fan Co., Div. Castle Hills Corp., Piqua, Ohio.
 Holden Fan Co., Detroit, Mich.
 Ilg Electric Ventilating Co., Chicago, Ill.
 International Engineering, Inc., Dayton, Ohio.
 Joy Mfg. Co., Pittsburgh, Pa.
 Martin Fan & Blower Co., Chicago, Ill.
 M & E Mfg. Co., Indianapolis, Ind.
 Moore Co., St. Louis, Mo.
 Robbins & Myers, Inc., Springfield, Ohio.
 Schwitzer-Cummins Co., Indianapolis, Ind.
 South Bend Air Products, Inc., South Bend, Ind.
 Sutton Corp., O. A., Wichita, Kans.
 Vernco Corp., Columbus, Ind.
 Westinghouse Electric Corp., Sturtevant Div., Boston, Mass.
 Wind-Way Fan & Ventilator Co., New Orleans, La.
 Wing Mfg. Co., L. J., Linden, N.J.
 Zink Co., John, Tulsa, Okla.

FANS, PROPELLER TYPE, BOOSTER, COLD AIR RETURN

Advance Aluminum Castings Corp., Chicago, Ill.
 Bern's Mfg. Co., Chicago, Ill.
 Brookside Products Co., Inc., McCordsville, Ind.
 Brumme Mfg. Co., Bloomington, Ill.
 Cary Mfg. Co., Waupaca, Wis.
 Dana Fan & Blower Corp., Cincinnati, Ohio.
 General Blower Co., Inc., Philadelphia, Pa.
 International Engineering, Inc., Dayton, Ohio.
 Joy Mfg. Co., Pittsburgh, Pa.
 McLarty Systems, Battle Creek, Mich.
 Martin Fan & Blower Co., Chicago, Ill.
 Mauer Engineering, Evanston, Ill.
 Robbins & Myers, Inc., Springfield, Ohio.
 Silent Sioux Corp., Orange City, Iowa.
 Standard Electric Mfg. Co., Inc., West Berlin, N. J.
 Western Engineering & Mfg. Co., Venice, Calif.

FANS, PROPELLER TYPE, BOOSTER, ONE-PIPE WARM AIR

Brookside Products Co., Inc., McCordsville, Ind.

Brumme Mfg. Co., Bloomington, Ill.
 Champion Blower & Forge Co., Lancaster, Pa.
 Dana Fan & Blower Corp., Cincinnati, Ohio.
 Dual-Air Fan Co., Hampshire, Ill.
 McLarty Systems, Battle Creek, Mich.
 Martin Fan & Blower Co., Chicago, Ill.
 Mauer Engineering, Evanston, Ill.
 Park Sheet Metal Specialties, Minneapolis, Minn.
 Robbins & Myers, Inc., Springfield, Ohio.
 Standard Electric Mfg. Co., Inc., West Berlin, N. J.
 Victor Electric Products, Inc., Cincinnati, Ohio.
 Western Engineering & Mfg. Co., Venice, Calif.

FANS, PROPELLER TYPE, EXHAUSTERS

Acme Equipment Co. of Oklahoma, Inc., Muskogee, Okla.
 Aerovent Fan Co., Inc., Piqua, O.
 Airfan Engineering Co., Los Angeles, Calif.
 Allen Cooler & Ventilator, Inc., Rochester, Mich.
 American Blower Corp., Detroit, Mich.
 Ammerman Co., C. L., Minneapolis, Minn.
 Babbitt, Inc., New York, N. Y. (Mill)
 Bertram Co., Harvey P., Cincinnati, Ohio.
 Baldor Electric Co., St. Louis, Mo.
 Brookside Products Co., Inc., McCordsville, Ind.
 Buffalo Forge Co., Buffalo, N. Y.
 Century Fan & Ventilator Co., Stamford, Conn.
 Champion Blower & Forge Co., Lancaster, Pa.
 Chelsea Fan & Blower Co., Inc., Plainfield, N. J.
 Chicago Blower Corp., Franklin Park, Ill.
 Cirklair Products Div., Folsom Co., Inc., Dallas, Tex.
 Clarage Fan Co., Kalamazoo, Mich.
 Commercialaire, Inc., Brooklyn, N. Y.
 Cook Co., Loren, Berea, Ohio.
 Coppus Engineering Corp., Worcester, Mass.
 Dana Fan & Blower Corp., Cincinnati, Ohio.
 De Bothezat Fans Div., American Machine & Metals, Inc., East Moline, Ill.
 Despatch Oven Co., Minneapolis, Minn.
 Diehl Mfg. Co., Somerville, N. J.
 Electrovent Fan & Mfg. Co., Chicago, Ill.
 Felter Co., John, San Antonio, Tex.
 Filkins, Inc., Edward, Chicago, Ill.
 Frigid, Inc., Brooklyn, N. Y.
 General Blower Co., Morton Grove, Ill.
 Holden Fan Co., Detroit, Mich.
 Ilg Electric Ventilating Co., Chicago, Ill.
 International Engineering, Inc., Dayton, O.
 Jeann Air Products Co., Indianapolis, Ind.
 Joy Mfg. Co., Pittsburgh, Pa.
 King Co., Owatonna, Minn.
 Kirk & Blum Mfg. Co., Cincinnati, Ohio.
 Kloppenborg Aluminum Foundry, Davenport, Iowa.
 Martin Fan & Blower Co., Chicago, Ill.
 McLarty Systems, Battle Creek, Mich.
 Moore Co., St. Louis, Mo.
 Mountain States Equipment Co., Denver, Colo.
 Muckle Mfg. Co., Owatonna, Minn.
 National Engineering & Mfg. Co., Sedalia, Mo.
 National Gas Equipment Co., Inc., Denison, Texas.
 Peerless Electric Co., Warren, O.
 Phoenix Fan and Blower Mfg. Co., Div. of Polaire Cooler Co., Phoenix, Ariz.
 Reed Unit-Fans, Inc., New Orleans, La.
 Rich Fan Mfg. Co., Phil, Houston, Tex.
 Robbins & Myers, Inc., Springfield, O.
 Ruemelin Mfg. Co., Milwaukee, Wis.
 Signal Electric Div., King-Seely Corp., Menominee, Mich.
 Sutton Corp., O. A., Wichita, Kans.
 Torit Mfg. Co., St. Paul, Minn.
 Trade-Wind Motorfans, Inc., Los Angeles, Calif.
 Trane Co., The, La Crosse, Wis.
 Vernco Corp., Columbus, Ind.
 Western Engineering & Mfg. Co., Venice, Calif.
 Wind-Way Fan & Ventilator Co., New Orleans, La.
 Zink Co., John, Tulsa, Okla.

FANS, PROPELLER TYPE, FURNACE

American Blower Corp., Detroit, Mich.
 Brookside Products Co., Inc., McCordsville, Ind.
 Brumme Mfg. Co., Bloomington, Ill.
 Corlett-Turner Co., Chicago, Ill.
 Dana Fan & Blower Corp., Cincinnati, Ohio.
 De Bothezat Fan Div., American Machine & Metals, Inc., East Moline, Ill.
 Dual-Air Fan Co., Hampshire, Ill.
 Joy Mfg. Co., Pittsburgh, Pa.

Martin Fan & Blower Co., Chicago, Ill.
 McLarty Systems, Battle Creek, Mich.
 Peerless Electric Co., Warren, Ohio.

FANS, PROPELLER TYPE, KITCHEN EXHAUST

American Blower Corp., Detroit, Mich.
 Ammerman Co., C. L., Minneapolis, Minn.
 Arex Co., Chicago, Ill.
 Bar-Brook Mfg. Co., Inc., Shreveport, La.
 Bern's Mfg. Co., Chicago, Ill.
 Bishop & Babcock Mfg. Co., Cleveland, Ohio.
 Broan Mfg. Co., Inc., Milwaukee, Wis.
 Brookside Products Co., Inc., McCordsville, Ind.
 Buffalo Forge Co., Buffalo, N. Y.
 Carey Mfg. Co., Philip, Cincinnati, Ohio.
 Century Fan & Ventilator Co., Stamford, Conn.
 Champion Blower & Forge Co., Lancaster, Pa.
 Chelsea Fan & Blower Co., Inc., Plainfield, N. J.
 Clarage Fan Co., Kalamazoo, Mich.
 Commercialaire, Inc., Brooklyn, N. Y.
 Cook Co., Loren, Berea, O.
 Crane Co., Chicago, Ill.
 Dana Fan & Blower Corp., Cincinnati, Ohio.
 Diehl Mfg. Co., Somerville, N. J.
 Dual-Air Fan Co., Hampshire, Ill.
 Electrovent Fan & Mfg. Co., Chicago, Ill.
 Emerson Electric Mfg. Co., St. Louis, Mo.
 Fasco Industries, Inc., Rochester, N. Y.
 Filkins, Inc., Edward, Chicago, Ill.
 Frigid, Inc., Brooklyn, N. Y.
 Ilg Electric Ventilating Co., Chicago, Ill.
 Jenn Air Products Co., Indianapolis, Ind.
 Kloppenborg Aluminum Foundry, Davenport, Iowa.
 Kool Air Engineering Co., San Bernardino, Calif.
 Lau Blower Co., Dayton, Ohio.
 Martin Fan & Blower Co., Chicago, Ill.
 Marvin Mfg. Co., Los Angeles, Calif.
 McLarty Systems, Battle Creek, Mich.
 Meyer Mfg. Co., Detroit, Mich.
 Myers Electric Co., Inc., Pittsburgh, Pa.
 National Appliance Co., Detroit, Mich.
 Norris-Thermador Corp., Los Angeles, Calif.
 NuTone, Inc., Cincinnati, O.
 Peerless Electric Co., Warren, Ohio.
 Phoenix Fan and Blower Mfg. Co., Div. of Polaire Cooler Co.,
 Phoenix, Ariz.
 Pryne & Co., Inc., Pomona, Calif.
 Signal Electric Div., King-Seely Corp., Menominee, Mich.
 Simpson Co., Oakland, Calif.
 Skinner Heating & Ventilating Co., Inc., St. Louis, Mo.
 Standard Electric Mfg. Co., Inc., West Berlin, N. J.
 Stewart Mfg. Co., Indianapolis, Ind.
 Sutton Corp., O. A., Wichita, Kans.
 Trade-Wind Motorfans, Inc., Los Angeles, Calif.
 Universal Blower Co., Birmingham, Mich.
 Vernco Corp., Columbus, Ind.
 West Wind Corp., Seattle, Wash.
 Western Blower Co., Seattle, Wash.

FANS, PROPELLER TYPE, NIGHT AIR COOLING

Air Controls, Inc., Cleveland, Ohio.
 Air Equipment Co., Inc., Chicago, Ill.
 Airmaster Corp., Chicago, Ill.
 Allen Cooler & Ventilator Inc., Rochester, Mich.
 American Blower Corp., Detroit, Mich.
 American Coolair Corp., Jacksonville, Fla.
 Arlington Electric Co., St. Louis, Mo.
 Baldor Electric Co., St. Louis, Mo.
 Bar-Brook Mfg. Co., Inc., Shreveport, La.
 Belco Industries, Inc., St. Louis, Mo.
 Bern's Mfg. Co., Chicago, Ill.
 Bishop & Babcock Mfg. Co., Cleveland, O.
 Brookside Products Co., Inc., McCordsville, Ind.
 Buffalo Forge Co., Buffalo, N. Y.
 C & H Air Conditioning Fan Co., Inc., Atlanta, Ga.
 Carey Mfg. Co., Philip, Cincinnati, Ohio.
 Century Fan & Ventilator Co., Stamford, Conn.
 Champion Blower & Forge Co., Lancaster, Pa.
 Chelsea Fan & Blower Co., Inc., Plainfield, N. J.
 Chicago Blower Corp., Franklin Park, Ill.
 Cirklair Products Div., Folsom Co., Inc., Dallas, Texas.
 Climax Machinery Co., Indianapolis, Ind.
 Cook Co., Loren, Berea, Ohio.
 Dana Fan & Blower Corp., Cincinnati, Ohio.
 Dearborn Stove Co., Dallas, Texas.

Diehl Mfg. Co., Somerville, N. J.
 Dual-Air Fan Co., Hampshire, Ill.
 Electrovent Fan & Mfg. Co., Chicago, Ill.
 Emerson Electric Mfg. Co., St. Louis, Mo.
 Felter Co., John, San Antonio, Tex.
 Fresh Air Circulator Co., Houston, Texas.
 Freshnd-Aire Co., Div. of Cory Corp., Chicago, Ill.
 Frigid, Inc., Brooklyn, N. Y.
 General Blower Co., Inc., Philadelphia, Pa.
 General Blower Co., Morton Grove, Ill.
 Hartzell Propeller Fan Co., Div. Castle Hills Corp., Piqua, Ohio.
 Hunter Fan & Ventilating Co., Memphis, Tenn.
 Ilg Electric Ventilating Co., Chicago, Ill.
 International Oil Burner Co., St. Louis, Mo.
 Jordan & Co., Inc., Paul R., Indianapolis, Ind.
 King Co., Owatonna, Minn.
 Kloppenborg Aluminum Foundry, Davenport, Ia.
 Lakewood Engineering & Mfg. Co., Chicago, Ill.
 Lau Blower Co., Dayton, Ohio.
 Lonergan Mfg. Co., Albion, Mich.
 Martin Fan & Blower Co., Chicago, Ill.
 McLean Engineering Laboratories, Princeton, N. J.
 Meier Electric & Machine Co., Inc., Indianapolis, Ind.
 Murray Co. of Texas, Inc., Dallas, Tex.
 National Engineering & Mfg. Co., Sedalia, Mo.
 National Gas Equipment Co., Inc., Denison, Texas.
 Nelson Products, Herman, American Air Filter Co., Louisville,
 Ky.
 NuTone, Inc., Cincinnati, O.
 Palmer Mfg. Corp., Phoenix, Ariz.
 Peerless Electric Co., Warren, Ohio.
 Phelps Mfg. Co., Little Rock, Ark.
 Reed Unit-Fans, Inc., New Orleans, La.
 Rich Fan Mfg. Co., Phil. Houston, Tex.
 Robbins & Myers, Inc., Springfield, Ohio.
 Schwitzer-Cummins Co., Indianapolis, Ind.
 Seco-Lite Mfg. Co., St. Louis, Mo.
 Standard Electric Mfg. Co., Inc., West Berlin, N. J.
 Sutton Corp., O. A., Wichita, Kans.
 Victor Electric Products, Inc., Cincinnati, Ohio.
 Viking Air Conditioning Div., National Radiator Co., Cleve-
 land, O.
 Western Blower Co., Seattle, Wash.
 Wind-Way Ventilator Co., New Orleans, La.

FANS, PROPELLER TYPE, VENTILATING SYSTEM

Capacity 4000 cfm up for connection to ductwork

Acme Equipment Co., Muskogee, Okla.
 Aerovent Fan Co., Piqua, Ohio.
 Air Controls, Inc., Cleveland, Ohio.
 Airfan Engineering Co., Los Angeles, Calif.
 Airmaster Corp., Chicago, Ill.
 Allen Cooler & Ventilator Inc., Rochester, Mich.
 Ammerman Co., C. L., Minneapolis, Minn.
 Arex Co., Chicago, Ill.
 Arlington Electric Co., St. Louis, Mo.
 Babbins, Inc., New York, N. Y.
 Bar-Brook Mfg. Co., Inc., Shreveport, La.
 Belco Industries, Inc., St. Louis, Mo.
 Bern's Mfg. Co., Chicago, Ill.
 Bertram Co., Harvey P., Cincinnati, Ohio.
 Bishop & Babcock Mfg. Co., Cleveland, Ohio.
 Bishop Co., R. H., Champaign, Ill.
 Brookside Products Co., Inc., McCordsville, Ind.
 Buffalo Forge Co., Buffalo, N. Y.
 C & H Air Conditioning Fan Co., Inc., Atlanta, Ga.
 Carey Mfg. Co., Philip, Cincinnati, Ohio.
 Century Fan & Ventilator Co., Stamford, Conn.
 Champion Blower & Forge Co., Lancaster, Pa.
 Chelsea Fan & Blower Co., Inc., Plainfield, N. J.
 Chicago Blower Corp., Franklin Park, Ill.
 Cirklair Products Div. Folsom Co., Inc., Dallas, Texas.
 Clarage Fan Co., Kalamazoo, Mich.
 Climax Machinery Co., Indianapolis, Ind.
 Commercialaire, Inc., Brooklyn, N. Y.
 Cook Co., Loren, Berea, O.
 Coppus Engineering Corp., Worcester, Mass.
 Dana Fan & Blower Corp., Cincinnati, Ohio.
 De Bothezat Fans Div., American Machine & Metals, Inc.,
 East Moline, Ill.
 De Vilbiss Co., Toledo, Ohio.
 Diehl Mfg. Co., Somerville, N. J.
 Dual-Air Fan Co., Hampshire, Ill.
 Electrovent Fan & Mfg. Co., Chicago, Ill.
 Emerson Electric Mfg. Co., St. Louis, Mo.
 Frigid, Inc., Brooklyn, N. Y.

Freshind-Aire Co., Div. of Cory Corp., Chicago, Ill.
General Blower Co., Morton Grove, Ill.
Hartzell Propeller Fan Co., Div. Castle Hills Corp., Piqua, Ohio.

Holden Fan Co., Detroit, Mich.
Hunter Fan & Ventilating Co., Memphis, Tenn.
Ilg Electric Ventilating Co., Chicago, Ill.
International Engineering, Inc., Dayton, Ohio.
International Oil Burner Co., St. Louis, Mo.
Jordan & Co., Inc., Paul R., Indianapolis, Ind.
Joy Mfg. Co., Pittsburgh, Pa.
King Co., Owatonna, Minn.
Kloppenborg Aluminum Foundry, Davenport, Iowa.
Lakewood Engineering & Mfg. Co., Chicago, Ill.
Martin Fan & Blower Co., Chicago, Ill.
M & E Mfg. Co., Indianapolis, Ind.
Meier Electric & Machine Co., Inc., Indianapolis, Ind.
Moore Co., St. Louis, Mo.
Mountain States Equipment Co., Denver, Colo.
Murray Co. of Texas, Inc., Dallas, Texas.
Myers Electric Co., Inc., Pittsburgh, Pa.
National Gas Equipment Co., Inc., Denison, Texas.
Nelson Products, Herman, American Air Filter Co., Louisville, Ky.
New York Blower Co., Chicago, Ill.
Palmer Mfg. Corp., Phoenix, Ariz.
Peerless Electric Co., Warren, Ohio.
Reynolds Electric Co., River Grove, Ill.
Robbins & Myers, Inc., Springfield, Ohio.
Schwitzer-Cummins Co., Indianapolis, Ind.
Seco-Lite Mfg. Co., St. Louis, Mo.
Skinner Heating & Ventilating Co., Inc., St. Louis, Mo.
South Bend Air Products, Inc., South Bend, Ind.
Standard Electric Mfg. Co., Inc., West Berlin, N. J.
Trade-Wind Motorfans, Inc., Los Angeles, Calif.
Truffo Fan Co., Harmony, Pa.
Uno Ventilator Co., Malden, Mass.
Western Blower Co., Seattle, Wash.
Western Engineering & Mfg. Co., Venice, Calif.
Westinghouse Electric Corp., Sturtevant Div., Boston, Mass.
Wind-Way Fan & Ventilator Co., New Orleans, La.
Wing Mfg. Co., L. J., Linden, N.J.

FASTENINGS, INSULATION

Gerrard & Co., A. J., Melrose Park, Ill.
Hexdall Co., A. M., Morris, Ill.
Nelson Stud Welding Div., Gregory Industries, Inc., Lorain, O.
Stic-Klip Mfg. Co., Inc., Cambridge, Mass.

FASTENINGS, SHEET METAL

Camloc Fastener Corp., Paramus, N. J.
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Cuyahoga Spring Co., Cleveland, Ohio.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Fabricated Products Co., West Newton, Pa.
Lion Fastener, Inc., Honeoye Falls, N. Y.
Shakeproof Div., Illinois Tool Wks., Chicago, Ill.
Southco Div., South Chester Corp., Philadelphia, Pa.
Star Expansion Bolt Co., New York, N. Y.
Star Stainless Screw Co., Paterson, N. J.
Tinnerman Products, Inc., Cleveland, Ohio.
United-Carr Fastener Corp., Cambridge, Mass.
Velocity-Power Tool Co., Pittsburgh, Pa.

FELT, ROOFING

Barber Co., Inc., Philadelphia, Pa.
Barrett Div. Allied Chemical & Dye Corp., New York, N. Y.
Carey Mfg. Co., Philip, Cincinnati, Ohio.
Celotex Corp., Chicago, Ill.
Certain-teed Products Corp., Ardmore, Pa.
Detroit Steel Products Co., Detroit, Mich.
Flintkote Co., New York, N. Y.
Globe Roofing Products Co., Inc., Whiting, Ind.
Johns-Manville, New York, N. Y.
Koppers Co., Inc., Pittsburgh, Pa.
Lehon Co., Bellwood, Ill.
Lexsuo, Inc., Cleveland, Ohio.
Meadows, Inc., W. R., Elgin, Ill.
National Mfg. Corp., Tonawanda, N. Y.
Ohio Paper Co., Miamisburg, Ohio.
Owens-Corning Fiberglas Corp., Toledo, Ohio.
Reilly Tar & Chemical Corp., Indianapolis, Ind.
Ruberoid Co., New York, N. Y.
United States Gypsum Co., Chicago, Ill.

FILTER GAGES

See Gages, Indicating, Filter Resistance

FILTERS, AIR, AUTOMATIC

Air-Maze Corp., Cleveland, O.
Air & Refrigeration Corp., New York, N. Y.
Air Stream Filter Corp., St. Louis, Mo.
American Air Filter Co., Inc., Louisville, Ky.
Continental Air Filters, Inc., Louisville, Ky.
Day Co., Minneapolis, Minn.
Dollinger Corp., Rochester, N. Y.
Farr Co., Los Angeles, Calif.

FILTERS, AIR, CLEANABLE

Air Devices, Inc., New York, N. Y. (Steel wire mesh).
Air & Refrigeration Corp., New York, N. Y. (Fiberglass)
Air Filter Corp., Milwaukee, Wis. (Wire cloth)
Air-Maze Corp., Cleveland, Ohio. (Metal wire baffles)
Air Stream Filter Corp., St. Louis, Mo.
Aluminum Wool Div., Carey Electronic Engineering Co., Springfield, O.
American Air Filter Co., Inc., Louisville, Ky. (Glass fibers)
Bard Mfg. Co., Bryan, O. (Aluminum)
Besser Metal Products Corp., Charlotte, N. C. (Plastic)
Brauer Supply Co., A. G., St. Louis, Mo.
Continental Air Filters, Inc., Louisville, Ky. (Steel & aluminum)
Coppus Engineering Corp., Worcester, Mass. (Felt).
Dollinger Corp., Rochester, N. Y. (Feltex, Glastex, heat resistant cotton).
Draco Industrial Corp., New York, N. Y. (Felt)
Evans Corp., George, Moline, Ill. (Aluminum)
Farr Co., Los Angeles, Calif. (Metal)
Goodyear Tire & Rubber Co., Akron, Ohio. (Polyethylene)
Kaufman Air Conditioning Corp., St. Louis, Mo. (Aluminum)
Microtron Corp., Charlotte, N. C. (Plastic)
Mine Safety Appliance Co., Pittsburgh, Pa.
Research Products Corp., Madison, Wis. (Metal).
Smith Filter Corp., Moline, Ill. (Aluminum)
Somers, Inc., H. J., Detroit, Mich. (Hair & glass)
Stoddard Industries, Inc., Chicago, Ill. (Woven plastic)
York Corp., York, Pa.

FILTERS, AIR, ELECTROSTATIC

Air-Maze Corp., Cleveland, Ohio.
American Air Filter Co., Inc., Louisville, Ky.
Besser Metal Products Corp., Charlotte, N. C.
Dollinger Corp., Rochester, N. Y.
Electro-Air Cleaner Co., Pittsburgh, Pa.
Radex Corp., Chicago, Ill.
Raytheon Mfg. Co., Waltham, Mass.
Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
Trion, Inc., McKees Rocks, Pa.
Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va.

FILTERS, AIR, GREASE, FOR RANGE HOODS

Air Devices, Inc., New York, N. Y.
Air Filter Corp., Milwaukee, Wis.
Air-Maze Corp., Cleveland, Ohio.
Air Stream Filter Corp., St. Louis, Mo.
American Air Filter Co., Inc., Louisville, Ky.
Brauer Supply Co., A. G., St. Louis, Mo.
Continental Air Filters, Inc., Louisville 1, Ky.
Dollinger Corp., Rochester, N. Y.
Farr Co., Los Angeles, Calif.
Research Products Corp., Madison, Wis.
Smith Filter Corp., Moline, Ill.

FILTERS, AIR, THROWAWAY

Air-Maze Corp., Cleveland, O.
Aigard Mfg. Co., Chicago, Ill.
American Air Filter Co., Inc., Louisville, Ky.
Beck Mfg. Co., New Albany, Ind.
Brauer Supply Co., A. G., St. Louis, Mo.
Cambridge Filter Corp., Syracuse, N. Y.
Draco Industrial Corp., New York, N. Y.
Filtrex Corp., Corona, N. Y.
Harvey, Inc., Sid, Valley Stream, N. Y.
Lennox Furnace Co., Marshalltown, Ia.
Master Products Co., Inc., Chicago, Ill.
Owens-Corning Fiberglas Corp., Toledo, Ohio.
Pittsburgh Plate Glass Co., Pittsburgh, Pa.
Research Products Corp., Madison, Wis.
Standard Asbestos Mfg. Co., Chicago, Ill.

Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
Wilson & Co., Inc., Chicago, Ill. (Animal Hair).
York Corp., York, Pa.

FILTERS, AIR, UNIT, RENEWABLE MEDIA

American Air Filter Co., Inc., Louisville, Ky.
American Radiator & Standard Sanitary Corp., Pittsburgh, Pa.
Annis Air Filter Div., Royal Heaters, Inc., Alhambra, Calif.
Chicopee Mills, Inc., New York, N. Y.
Continental Air Filters, Inc., Louisville, Ky.
Dollinger Corp., Rochester, N. Y.
Filtrex Corp., Corona, N. Y.
Himelblau Associates, Inc., Chicago, Ill.
Pittsburgh Plate Glass Co., Pittsburgh, Pa.
Research Products Corp., Madison, Wis.
Shrager, Inc., John, New York, N. Y.

FILTERS, FUEL OIL

A-P Controls Corp., Milwaukee, Wis.
Auto-Flo Corp., Detroit, Mich.
Barclay, Inc., Robt., Chicago, Ill.
Commercial Filters Corp., Melrose, Mass.
Cuno Engineering Corp., Meriden, Conn.
Eclipse Fuel Engineering Co., Rockford, Ill.
Eddington Metal Specialty Co., Eddington, Pa.
Fram Corp., Providence, R. I.
Fram Corp., Dexter, Mich.
General Filters, Inc., Novi, Mich.
Harvey, Inc., Sid, Valley Stream, N.Y.
Kraissl Co., Inc., Hackensack, N. J.
Marquart Mfg. Co., Oakland, Calif.
Morse-Smith-Morse Co., The, Watertown, Mass.
Purolator Products, Inc., Rahway, N. J.
Rega Mfg. Co., Rochester, N. Y.
Sparkler Mfg. Co., Mundelein, Ill.
Tool Industries, Inc., Detroit, Mich.
W.G.B. Oil Clarifier, Inc., Kingston, N. Y.

FILTERS, ODOR

See Adsorbents, Odor

FIRE BRICK

See Refractories

FIREPOTS

See Parts, Repair, Furnace and Stove

FITTINGS, CONDUCTOR

See Pipe and Fittings, Conductor

FITTINGS, COPPER TUBE, COMPRESSION AND FLARED

American Brass Co., Waterbury, Conn.
Barcafer Mfg. Co., Salina, Kans.
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Commonwealth Brass Corp., Detroit, Mich.
Conklin Brass & Copper Co., Inc., T. E., New York, N. Y.
Crane Co., Chicago, Ill.
Downs-Smith Brass & Copper Co., Inc., New York, N. Y.
Everhot Products Co., Chicago, Ill.
Fisher Brass Foundry, Los Angeles, Calif.
Hays Mfg. Co., Erie, Pa.
Imperial Brass Mfg. Co., Chicago, Ill.
Kerotest Mfg. Co., Pittsburgh, Pa.
Lincoln Brass Works, Detroit, Mich.
Madden Brass Products Co., Aurora, Ill.
Market Forge Co., Everett, Mass.
Mueller Brass Co., Port Huron, Mich.
Mueller Co., Decatur, Ill.
Northern Indiana Brass Co., Elkhart, Ind.
Oil Equipment Mfg. Co., New Haven, Conn.
Parker Appliance Co., Cleveland, Ohio.
Remko, Inc., Zelenople, Pa.
Weatherhead Co., Cleveland, Ohio.

FITTINGS, GUTTER

See Gutter Accessories

FITTINGS, HUMIDIFIER, WATER LINE

American Brass Co., Waterbury, Conn.
Hays Mfg. Co., Erie, Pa.
Imperial Brass Mfg. Co., Chicago, Ill.

Lincoln Brass Works, Detroit, Mich.
Maid-O'-Mist, Inc., Chicago, Ill.
Mueller Brass Co., Port Huron, Mich.
Reichert Float & Mfg. Co., Toledo, Ohio.
Ross Sprinkler Co., Rosemead, Calif.
Skuttle Mfg. Co., Milford, Mich.

FITTINGS, PIPE

See Pipe and Fittings, Furnace

FLANGING MACHINES

See Machines, Flanging

FLASHINGS, ROOF, PREFABRICATED

Acme Roof Jacket Co., Minneapolis, Minn.
Alpha Metals, Inc., Jersey City, N. J.
American Metal Products, Los Angeles, Calif.
American Sisalkraft Corp., Attleboro, Mass.
American Steel Band Co., Pittsburgh, Pa.
Angier Corp., Framingham, Mass.
Atchison Specialty Mfg. Co., Atchison, Kans.
Berger Mfg. Div., Republic Steel Co., Canton, Ohio.
Ceco Steel Products Corp., Chicago, Ill.
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Cheney Flashing Co., Trenton, N. J.
Division Lead Co., Summit, Ill.
Downs-Smith Brass & Copper Co., Inc., New York, N. Y.
Figge Mfg. Co., Chicago, Ill.
Flemm Lead Co., Inc., Long Island City, N. Y.
Fry Reglet Corp., Bremerton, Wash.
Hussey & Co., C. G., Pittsburgh, Pa.
Inland Steel Products Co., Milwaukee, Wis.
Johns-Manville, New York, N. Y.
Keystone Flashing Co., Philadelphia, Pa.
Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
Meadows, Inc., W. R., Elgin, Ill.
Moncrief Furnace Co., Atlanta, Ga.
National Lead Co., New York City, N. Y.
New Delphos Mfg. Co., Delphos, Ohio.
Nichols Wire & Aluminum Co., Davenport, Iowa.
Northwest Metal Products, Inc., Seattle, Wash.
Overly Mfg. Co., Greensburg, Pa.
Penn Supply & Metal Corp., Philadelphia, Pa.
Perkinson, William J., Chicago, Ill.
Plasteel Products Co., Washington, Pa.
Quaker State Metals Co., Lancaster, Pa.
Reeves Steel & Mfg. Co., Dover, Ohio.
Republic Steel Corp., Cleveland, O.
Revere Copper & Brass Inc., New York, N. Y.
Roofing & Supply Co., Chattanooga, Tenn.
Royal-Apex Mfg. Co., Inc., Brooklyn, N. Y.
Schoedinger, F. O., Columbus, Ohio.
Simplex Mfg. Co., Fond du Lac, Wis.
Vallas, Lionel, Chicago, Ill.
Van Noorden Co., E., Boston, Mass.
Wallace Co., William, Metalbestos Div., Belmont, Calif.
Wheeling Corrugating Co., Wheeling, W. Va.

FLASHINGS, THROUGH-WALL, PREFABRICATED

American Brass Co., Waterbury, Conn.
American Sisalkraft Corp., Attleboro, Mass.
American Steel Band Co., Pittsburgh, Pa.
Ceco Steel Products Corp., Chicago, Ill.
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Cheney Flashing Co., Trenton, N. J.
Division Lead Co., Summit, Ill.
Downs-Smith Brass & Copper Co., Inc., New York, N. Y.
Figge Mfg. Co., Chicago, Ill.
Hussey & Co., C. G., Pittsburgh, Pa.
Keystone Flashing Co., Philadelphia, Pa.
Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
New Delphos Mfg. Co., Delphos, Ohio.
Perkinson, William J., Chicago, Ill.
Revere Copper and Brass Inc., New York, N. Y.
Roofing & Supply Co., Chattanooga, Tenn.
Vallas, Lionel, Chicago, Ill.
Van Noorden Co., E., Boston, Mass.
Wasco Flashing Co., Cambridge, Mass.

FLOOR REGISTERS

See Diffusers, Air, Floor, also Grilles, Heating, Ventilating and Air Conditioning

FLUE GAS ANALYZERS

See Analyzers, CO, Portable

FLUX, ACID

All-State Welding Alloys Co., Inc., White Plains, N. Y.
Allen Co., Inc., L. B., Chicago, Ill.
Alpha Metals, Inc., Jersey City, N. J.
American Solder & Flux Co., Philadelphia, Pa.
Anchor Metal Co., Brooklyn, N. Y.
Carajon Chemical Co., Inc., Fremont, Mich.
Division Lead Co., Summit, Ill.
du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.
Farrelloy Co., Philadelphia, Pa.
Fusion Engineering, Cleveland, O.
Glaser Lead Co., Inc., Brooklyn, N. Y.
Hercules Chemical Co., Inc., New York, N. Y.
Klem Chemicals, Inc., Dearborn, Mich.
National Cylinder Gas Co., Chicago, Ill.
National Lead Co., New York, N. Y.
Neilson Chemical Co., Detroit, Mich.
Paul-Lewis Laboratories, Inc., Milwaukee, Wis.
Ruby Chemical Co., Columbus, O.
S. O. S. Products Co., Inc., Brooklyn, N. Y.
Superior Flux & Mfg. Co., Cleveland, O.
United Wire & Supply Corp., Providence, R. I.
Wolfe-Kote Co., Sheboygan, Wis.

FLUX, ALUMINUM

All-State Welding Alloys Co., Inc., White Plains, N. Y.
Allen Co., Inc., L. B., Chicago, Ill.
Aluminum Co. of America, Pittsburgh, Pa.
American Solder & Flux Co., Philadelphia, Pa.
Anchor Metal Co., Brooklyn, N. Y.
Bastian-Blessing Co., Chicago, Ill.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Farrelloy Co., Philadelphia, Pa.
Fusion Engineering, Cleveland, O.
Glaser Lead Co., Inc., Brooklyn, N. Y.
Johnson Gas Appliance Co., Cedar Rapids, Ia.
Johnson Mfg. Co., Inc., Mt. Vernon, Ia.
Kaiser Aluminum & Chemical Corp., Oakland, Calif.
Kester Solder Co., Chicago, Ill.
London Chemical Co., Chicago, Ill.
Marquette Mfg. Co., Inc., Minneapolis, Minn.
National Cylinder Gas Co., Chicago, Ill.
National Lead Co., New York, N. Y.
Potomac Mfg. Co., Philadelphia, Pa.
Superior Flux & Mfg. Co., Cleveland, O.

FLUX, BRASS

All-State Welding Alloys Co., Inc., White Plains, N. Y.
Allen Co., Inc., L. B., Chicago, Ill.
American Solder & Flux Co., Philadelphia, Pa.
Anchor Metal Co., Brooklyn, N. Y.
Bastian-Blessing Co., Chicago, Ill.
Benson Co., Inc., Alex R., Hudson, N. Y.
Burnley Battery & Mfg. Co., North East, Pa.
Division Lead Co., Summit, Ill.
du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.
Farrelloy Co., Philadelphia, Pa.
Fusion Engineering, Cleveland, O.
Handy & Harman, New York, N. Y.
Hercules Chemical Co., Inc., New York, N. Y.
Johnson Mfg. Co., Inc., Mt. Vernon, Ia.
Linde Air Products Co., Div. Union Carbide & Carbon Corp., New York, N. Y.
Mueller Brass Co., Port Huron, Mich.
National Cylinder Gas Co., Chicago, Ill.
S. O. S. Products Co., Inc., Brooklyn, N. Y.
Superior Flux & Mfg. Co., Cleveland, O.

FLUX, CAST IRON

All-State Welding Alloys Co., Inc., White Plains, N. Y.
Allen Co., Inc., L. B., Chicago, Ill.
American Solder & Flux Co., Philadelphia, Pa.
Anchor Metal Co., Brooklyn, N. Y.
Bastian-Blessing Co., Chicago, Ill.
Division Lead Co., Summit, Ill.
Farrelloy Co., Philadelphia, Pa.
Handy & Harman, New York, N. Y.
Johnson Mfg. Co., Inc., Mt. Vernon, Ia.
Klem Chemicals, Inc., Dearborn, Mich.
Lenk Mfg. Co., Boston, Mass.
Linde Air Products Co., Div. Union Carbide & Carbon Corp., New York, N. Y.
London Chemical Co., Chicago, Ill.
Modern Engineering Co., St. Louis, Mo.
National Cylinder Gas Co., Chicago, Ill.

National Lead Co., New York, N. Y.
Superior Flux & Mfg. Co., Cleveland, O.
United Wire & Supply Corp., Providence, R. I.

FLUX, COPPER

All-State Welding Alloys Co., Inc., White Plains, N. Y.
Allen Co., Inc., L. B., Chicago, Ill.
American Solder & Flux Co., Philadelphia, Pa.
Anchor Metal Co., Brooklyn, N. Y.
Bastian-Blessing Co., Chicago, Ill.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Benson Co., Inc., Alex R., Hudson, N. Y.
Burnley Battery & Mfg. Co., North East, Pa.
Carajon Chemical Co., Inc., Fremont, Mich.
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Division Lead Co., Summit, Ill.
du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.
Farrelloy Co., Philadelphia, Pa.
Fusion Engineering, Cleveland, O.
Glaser Lead Co., Inc., Brooklyn, N. Y.
Handy & Harman, New York, N. Y.
Hercules Chemical Co., Inc., New York, N. Y.
Industrial Service Laboratories, Milwaukee, Wis.
Johnson Mfg. Co., Inc., Mt. Vernon, Ia.
Kester Solder Co., Chicago, Ill.
Kirk & Son, Inc., Morris P., Los Angeles, Calif.
Klem Chemicals, Inc., Dearborn, Mich.
Lenk Mfg. Co., Boston, Mass.
Mueller Brass Co., Port Huron, Mich.
National Cylinder Gas Co., Chicago, Ill.
National Lead Co., New York, N. Y.
Paul-Lewis Laboratories, Inc., Milwaukee, Wis.
Pfanstiehl Chemical Co., Waukegan, Ill.
Potomac Mfg. Co., Philadelphia, Pa.
Ruby Chemical Co., Columbus, O.
S. O. S. Products Co., Inc., Brooklyn, N. Y.
Superior Flux & Mfg. Co., Cleveland, O.

FLUX, GALVANIZED STEEL

All-State Welding Alloys Co., Inc., White Plains, N. Y.
Allen Co., Inc., L. B., Chicago, Ill.
American Solder & Flux Co., Philadelphia, Pa.
Anchor Metal Co., Brooklyn, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Benson Co., Inc., Alex R., Hudson, N. Y.
Burnley Battery & Mfg. Co., North East, Pa.
Carajon Chemical Co., Inc., Fremont, Mich.
Division Lead Co., Summit, Ill.
du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.
Eutectic Welding Alloys Corp., Flushing, N. Y.
Farrelloy Co., Philadelphia, Pa.
Fusion Engineering, Cleveland, O.
Glaser Lead Co., Inc., Brooklyn, N. Y.
Handy & Harman, New York, N. Y.
Hercules Chemical Co., Inc., New York, N. Y.
Industrial Service Laboratories, Milwaukee, Wis.
Johnson Mfg. Co., Inc., Mt. Vernon, Ia.
Kester Solder Co., Chicago, Ill.
Kirk & Son, Inc., Morris P., Los Angeles, Calif.
Klem Chemicals, Inc., Dearborn, Mich.
Lake Chemical Co., Chicago, Ill.
Liquid Carbonic Corp., Industrial Gas Div., Chicago, Ill.
London Chemical Co., Chicago, Ill.
National Cylinder Gas Co., Chicago, Ill.
National Lead Co., New York, N. Y.
Paul-Lewis Laboratories, Inc., Milwaukee, Wis.
Pfanstiehl Chemical Co., Waukegan, Ill.
Potomac Mfg. Co., Philadelphia, Pa.
Ruby Chemical Co., Columbus, O.
S. O. S. Products Co., Inc., Brooklyn, N. Y.
Tinit Mfg. Co., Inc., Denver, Colo.
United Wire & Supply Corp., Providence, R. I.

FLUX, INCONEL

All-State Welding Alloys Co., Inc., White Plains, N. Y.
Allen Co., Inc., L. B., Chicago, Ill.
American Products Corp., Chicago, Ill.
American Solder & Flux Co., Philadelphia, Pa.
Benson Co., Inc., Alex R., Hudson, N. Y.
Division Lead Co., Summit, Ill.
Farrelloy Co., Philadelphia, Pa.
Handy & Harman, New York, N. Y.
International Nickel Co., Inc., New York, N. Y.
Johnson Mfg. Co., Inc., Mt. Vernon, Ia.
National Cylinder Gas Co., Chicago, Ill.
Superior Flux & Mfg. Co., Cleveland, O.

FLUX, LEAD-TIN

Allen Co., Inc., L. B., Chicago, Ill.
Alpha Metals, Inc., Jersey City, N. J.
American Chemical Paint Co., Ambler, Pa.
Anchor Metal Co., Brooklyn, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Benson Co., Inc., Alex R., Hudson, N. Y.
Burnley Battery & Mfg. Co., North East, Pa.
Carajon Chemical Co., Inc., Fremont, Mich.
Division Lead Co., Summit, Ill.
du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.
Eutectic Welding Alloys Corp., Flushing, N. Y.
Farrelloy Co., Philadelphia, Pa.
Fusion Engineering, Cleveland, O.
Glaser Lead Co., Inc., Brooklyn, N. Y.
Hercules Chemical Co., Inc., New York, N. Y.
International Nickel Co., Inc., New York, N. Y.
Johnson Gas Appliance Co., Cedar Rapids, Ia.
Johnson Mfg. Co., Inc., Mt. Vernon, Ia.
Kester Solder Co., Chicago, Ill.
Kirk & Son, Inc., Morris P., Los Angeles, Calif.
Klem Chemicals, Inc., Dearborn, Mich.
Lake Chemical Co., Chicago, Ill.
Lukens Metal Co., Thos. F., Philadelphia, Pa.
National Cylinder Gas Co., Chicago, Ill.
National Lead Co., New York, N. Y.
Paul-Lewis Laboratories, Inc., Milwaukee, Wis.
Reiner & Campbell Co., Inc., Newark, N. J.
Ruby Chemical Co., Columbus, O.
S. O. S. Products Co., Inc., Brooklyn, N. Y.
Superior Flux & Mfg. Co., Cleveland, O.
Tinit Mfg. Co., Inc., Denver, Colo.

FLUX, MONEL

All-State Welding Alloys Co., Inc., White Plains, N. Y.
Allen Co., Inc., L. B., Chicago, Ill.
American Products Corp., Chicago, Ill.
American Solder & Flux Co., Philadelphia, Pa.
Anchor Metal Co., Brooklyn, N. Y.
Benson Co., Inc., Alex R., Hudson, N. Y.
Division Lead Co., Summit, Ill.
Farrelloy Co., Philadelphia, Pa.
Handy & Harman, New York, N. Y.
Johnson Mfg. Co., Inc., Mt. Vernon, Ia.
National Cylinder Gas Co., Chicago, Ill.
Ruby Chemical Co., Columbus, O.
Superior Flux & Mfg. Co., Cleveland, O.
Wolfe-Kote Co., Sheboygan, Wis.

FLUX, NICKEL

All-State Welding Alloys Co., Inc., White Plains, N. Y.
Allen Co., Inc., L. B., Chicago, Ill.
American Products Corp., Chicago, Ill.
American Solder & Flux Co., Philadelphia, Pa.
Anchor Metal Co., Brooklyn, N. Y.
Benson Co., Inc., Alex R., Hudson, N. Y.
Division Lead Co., Summit, Ill.
Farrelloy Co., Philadelphia, Pa.
Handy & Harman, New York, N. Y.
International Nickel Co., Inc., New York, N. Y.
Johnson Mfg. Co., Inc., Mt. Vernon, Ia.
National Cylinder Gas Co., Chicago, Ill.
Superior Flux & Mfg. Co., Cleveland, O.

FLUX, ROSIN

Allen Co., L. B., Chicago, Ill.
Alpha Metals, Inc., Jersey City, N. J.
American Solder & Flux Co., Philadelphia, Pa.
Anchor Metal Co., Brooklyn, N. Y.
Division Lead Co., Summit, Ill.
Farrelloy Co., Philadelphia, Pa.
Fusion Engineering, Cleveland, O.
Glaser Lead Co., Inc., Brooklyn, N. Y.
Hercules Chemical Co., Inc., New York, N. Y.
Johnson Mfg. Co., Inc., Mt. Vernon, Ia.
Kester Solder Co., Chicago, Ill.
Klem Chemicals, Inc., Dearborn, Mich.
Lake Chemicals Co., Chicago, Ill.
London Chemical Co., Chicago, Ill.
Lukens Metal Co., Thos. F., Philadelphia, Pa.
National Lead Co., New York, N. Y.
Pfanstiehl Chemical Co., Waukegan, Ill.
Ruby Chemical Co., Columbus, O.
S. O. S. Products Co., Inc., Brooklyn, N. Y.
Superior Flux & Mfg. Co., Cleveland, O.
United Wire & Supply Corp., Providence, R. I.

FLUX, SILVER

All-State Welding Alloys Co., Inc., White Plains, N. Y.
Allen Co., L. B., Chicago, Ill.
American Silver Co., Inc., Flushing, N. Y.
American Solder & Flux Co., Philadelphia, Pa.
Anchor Metal Co., Brooklyn, N. Y.
Benson Co., Inc., Alex R., Hudson, N. Y.
Division Lead Co., Summit, Ill.
Farrelloy Co., Philadelphia, Pa.
Handy & Harman, New York, N. Y.
Johnson Mfg. Co., Inc., Mt. Vernon, Ia.
Lake Chemicals Co., Chicago, Ill.
Marquette Mfg. Co., Inc., Minneapolis, Minn.
National Lead Co., New York, N. Y.
Superior Flux & Mfg. Co., Cleveland, O.

FLUX, STAINLESS STEEL

All-State Welding Alloys Co., Inc., White Plains, N. Y.
Allen Co., L. B., Chicago, Ill.
Alpha Metals, Inc., Jersey City, N. J.
American Products Corp., Chicago, Ill.
American Solder & Flux Co., Philadelphia, Pa.
Anchor Metal Co., Brooklyn, N. Y.
Arcos Corp., Philadelphia, Pa.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Benson Co., Inc., Alex R., Hudson, N. Y.
Carajon Chemical Co., Inc., Fremont, Mich.
Division Lead Co., Summit, Ill.
du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.
Farrelloy Co., Philadelphia, Pa.
Fusion Engineering, Cleveland, O.
Glaser Lead Co., Inc., Brooklyn, N. Y.
Handy & Harman, New York, N. Y.
Industrial Service Laboratories, Milwaukee, Wis.
Johnson Gas Appliance Co., Cedar Rapids, Ia.
Johnson Mfg. Co., Inc., Mt. Vernon, Ia.
Kester Solder Co., Chicago, Ill.
Klem Chemicals, Inc., Dearborn, Mich.
Lake Chemicals Co., Chicago, Ill.
Langsenkamp Co., F. H., Indianapolis, Ind.
Lenk Mfg. Co., Boston, Mass.
Linde Air Products Co., Div. Union Carbide & Carbon Corp., New York, N. Y.
London Chemical Co., Chicago, Ill.
Lukens Metal Co., Thos. F., Philadelphia, Pa.
National Cylinder Gas Co., Chicago, Ill.
National Lead Co., New York, N. Y.
Potomac Mfg. Co., Philadelphia, Pa.
Ruby Chemical Co., Columbus, O.
Superior Flux & Mfg. Co., Cleveland, O.
Wolfe-Kote Co., Sheboygan, Wis.

FLUX, WELDING

Air Reduction Sales Co., New York, N. Y.
All-State Welding Alloys Co., Inc., White Plains, N. Y.
Allen Co., L. B., Chicago, Ill.
Aluminum Co. of America, Pittsburgh, Pa.
American Solder & Flux Co., Philadelphia, Pa.
Anchor Metal Co., Brooklyn, N. Y.
Bastian-Blessing Co., Chicago, Ill.
Eutectic Welding Alloys Corp., Flushing, N. Y.
Farrelloy Co., Los Angeles, Calif.
International Nickel Co., Inc., New York, N. Y.
Johnson Gas Appliance Co., Cedar Rapids, Ia.
Johnson Mfg. Co., Inc., Mt. Vernon, Ia.
Lincoln Electric Co., Cleveland, O.
Linde Air Products Co., New York, N. Y.
Liquid Carbonic Corp., Industrial Gas Div., Chicago, Ill.
Marquette Mfg. Co., Minneapolis, Minn.
Midland Paint & Varnish Co., Cleveland, Ohio.
Modern Engineering Co., St. Louis, Mo.
National Cylinder Gas Co., Chicago, Ill.
Sight Feed Generator Co., West Alexandria, Ohio.
Smith Welding Equipment Corp., Minneapolis, Minn.
Solar Aircraft Co., San Diego, Calif.
Superior Flux & Mfg. Co., Cleveland, Ohio.
Tinit Mfg. Co., Inc., Denver, Colo.
United Wire & Supply Corp., Providence, R. I.

FLUX, ZINC

All-State Welding Alloys Co., Inc., White Plains, N. Y.
Allen Co., L. B., Chicago, Ill.
American Solder & Flux Co., Philadelphia, Pa.
Anchor Metal Co., Brooklyn, N. Y.

Burnley Battery & Mfg. Co., North East, Pa.
 Division Lead Co., Summit, Ill.
 du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.
 Glaser Lead Co., Inc., Brooklyn, N. Y.
 Johnson Mfg. Co., Inc., Mt. Vernon, Ia.
 Linde Air Products Co., Div. Union Carbide & Carbon Corp.,
 New York, N. Y.
 National Lead Co., New York, N. Y.
 Superior Flux & Mfg. Co., Cleveland, O.

FRAMES, CHIMNEY CAP

Rival Strap Corp., New York, N. Y.

FUEL OIL FILTERS

See Filters, Fuel Oil

FURNACE BLOWERS

See Blowers; Blower-Filter Units; Blower-Washer Units

FURNACE CEMENT

See Cement, Furnace

FURNACE CLEANERS

See Cleaners, Vacuum, Furnace

FURNACE PIPE

See Pipe and Fittings, Furnace

FURNACE PIPE FITTINGS AND ACCESSORIES

See Pipe and Fittings, Furnace

FURNACE REGULATORS

See Regulators, Furnace Draft, Mechanical; Controls; Control Systems

FURNACE REPAIR PARTS

See Parts, Repair, Furnace and Stove

FURNACES, FORCED WARM AIR, COUNTERFLOW, GAS FIRED, CAST IRON

For Perimeter Heating Systems in Slab or Crawl Space Construction

General Electric Co., Air Conditioning Div., Bloomfield, N. J.
 Kresky Mfg. Co., Inc., Petaluma, Calif.

FURNACES, FORCED WARM AIR, COUNTERFLOW, GAS FIRED, STEEL

For Perimeter Heating Systems in Slab or Crawl Space Construction

Advance Furnace Co., Wichita, Kans.
 Agricola Furnace Co., Inc., Gadsden, Ala.
 American Furnace Co., St. Louis, Mo.
 Anchor Div., Stratton & Terstege Co., Inc., New Albany, Ind.
 Armstrong Furnace Co., Columbus, O.
 Auburn Burner Co., Auburn, Ind.
 Bard Mfg. Co., Bryan, O.
 Berger Furnace Corp., Belle Vernon, Pa.
 Campbell Heating Co., Des Moines, Ia.
 Century Engineering Corp., Cedar Rapids, Ia.
 Columbia Specialty Co., Inc., Chevy Chase, Md.
 Conco Engineering Works, Heating Div., Mendota, Ill.
 Crane Co., Chicago, Ill.
 Day & Night Div., Affiliated Gas Equipment, Inc., Monrovia, Calif.
 Delco Appliance Div., General Motors Corp., Rochester, N. Y.
 Delta Heating Corp., Trenton, N. J.
 Farquhar Furnace Co., Wilmington, O.
 Firewel Co., Inc., Buffalo, N. Y.
 Floral City Heater Co., Monroe, Mich.
 Forest City Foundries Co., Niagara Furnace Div., Cleveland, O.
 Glasby Mfg. Co., Inc., J. P., Belleville, N. J.
 Green Colonial Furnace Co., Des Moines, Ia.
 Hall-Neal Furnace Co., Indianapolis, Ind.
 Heating Equipment Mfg. Co., San Francisco, Calif.
 Heil Co., Milwaukee, Wis.
 Henry Furnace Co., Medina, O.
 Hess Co., The, Chicago, Ill.
 Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill.
 International Heater Co., Utica, N. Y.
 International Sales Co., San Francisco, Calif.
 Iron Fireman Mfg. Co., Cleveland, O.

Jackson & Church Co., Saginaw, Mich.
 Jetronaire, Inc., Pittsburgh, Pa.
 Kalamazoo Furnace & Appliance Mfg. Co., Kalamazoo, Mich.
 Kaustine Furnace & Tank Corp., Perry, N. Y.
 Ko-Z-Aire Products, Inc., Red Oak, Ia.
 Leeson Air Conditioning Corp., Detroit, Mich.
 Lennox Furnace Co., Marshalltown, Ia.
 Little Burner Co., Inc., H. C., San Rafael, Calif.
 Magic Chef, Inc., St. Louis, Mo.
 Majestic Co., Inc., Huntington, Ind.
 Mayflower Air Conditioners, Inc., St. Paul, Minn.
 McDonald Mfg. Co., A. Y., Dubuque, Ia.
 Meyer Furnace Co., Peoria, Ill.
 Mueller Climatrol, Milwaukee, Wis.
 Norge Heat Div., Borg-Warner Corp., Kalamazoo, Mich.
 Norman Products Co., Inc., Columbus, O.
 Norwalk Air Conditioning Corp., South Norwalk, Conn.
 Olsen Mfg. Co., The C. A., Elyria, O.
 Patten Co., J. V., Sycamore, Ill.
 Payne Furnace Div., Affiliated Gas Equipment, Inc., Monrovia, Calif.
 Peerless Furnace and Foundry Co., Indianapolis, Ind.
 Perfection Stove Co., Cleveland, O.
 Radiant-Aire Corp., Michigan City, Ind.
 Ralph Mfg. Co., Inc., Wadsworth, O.
 Rheem Mfg. Co., Chicago, Ill.
 Richmond Radiator Co., Affil. Reynolds Metals Co., Metuchen, N. J.
 Round Oak Co., Inc., Dowagiac, Mich.
 Royal Jet, Inc., Alhambra, Calif.
 Rybolt Heater Co., Ashland, O.
 St. Louis Furnace Mfg. Co., St. Louis, Mo.
 Schill Mfg. Co., Crestline, O.
 Sequoia Mfg. Co., San Carlos, Calif.
 Sheet Metal Mfg. Co., Youngstown, O.
 Southwest Mfg. Co., Aurora, Mo.
 Stewart-Warner Corp., U. S. Machine Div., Lebanon, Ind.
 Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
 Superior Furnace & Mfg. Co., Plymouth, Mich.
 Surface Combustion Corp., Toledo, O.
 Sutton Corp., O. A., Wichita, Kans.
 Syncromatic Corp., Watertown, Wis.
 Temco, Inc., Nashville, Tenn.
 Thatcher Furnace Co., Garwood, N. J.
 Thermo-Products, Inc., North Judson, Ind.
 Timken Silent Automatic Div., Rockwell Spring and Axle Co., Jackson, Mich.
 Tjernlund Mfg. Co., St. Paul, Minn.
 Toridheet Div., Cleveland Steel Products Corp., Cleveland, O.
 United States Radiator Corp., Detroit, Mich.
 Utility Appliance Corp., Los Angeles, Calif.
 Viking Mfg. Corp., Cleveland, O.
 Waterman-Waterbury Co., Minneapolis, Minn.
 Wayne Home Equipment Co., Inc., Fort Wayne, Ind.
 Williamson Heater Co., Cincinnati, O.
 York-Shipley, Inc., York, Pa.

FURNACES, FORCED WARM AIR, COUNTERFLOW, OIL FIRED, CAST IRON

For Perimeter Heating Systems in Slab or Crawl Space Construction

Hart Heat Div., Avery Farm Machinery Co., Peoria, Ill.
 Hess Co., The, Chicago, Ill.

FURNACES, FORCED WARM AIR, COUNTERFLOW, OIL FIRED, STEEL

For Perimeter Heating Systems in Slab or Crawl Space Construction

American Furnace Co., St. Louis, Mo.
 Anchor Div., Stratton & Terstege Co., Inc., New Albany, Ind.
 Arcweld Mfg. Co., Inc., Seattle, Wash.
 Armstrong Furnace Co., Columbus, O.
 Auburn Burner Co., Auburn, Ind.
 Bard Mfg. Co., Bryan, O.
 Berger Furnace Corp., Belle Vernon, Pa.
 Besser Metal Products Corp., Charlotte, N. C.
 Campbell Heating Co., Des Moines, Ia.
 Century Engineering Corp., Cedar Rapids, Ia.
 Certified Furnace Corp., Trenton, N. J.
 Columbia Specialty Co., Inc., Chevy Chase, Md.
 Conco Engineering Works, Heating Div., Mendota, Ill.
 Connecticut State Furnace Co., Bridgeport, Conn.
 Crane Co., Chicago, Ill.

Delco Appliance Div., General Motors Corp., Rochester, N. Y.
 Delta Heating Corp., Trenton, N. J.
 DeSoto Oil Burner Corp., York, Pa.
 Farquhar Furnace Co., Wilmington, O.
 Firewel Co., Inc., Buffalo, N. Y.
 Floral City Heater Co., Monroe, Mich.
 Forest City Foundries Co., Niagara Furnace Div., Cleveland, O.
 Front Rank Furnace Co., Div. Liberty Foundry Co., St. Louis, Mo.
 General Automatic Products Corp., Baltimore, Md.
 General Electric Co., Air Conditioning Div., Bloomfield, N. J.
 Gillen Co., J. L., Detroit, Mich.
 Glasby Mfg. Co., Inc., J. P., Belleville, N. J.
 Green Colonial Furnace Co., Des Moines, Ia.
 Hall-Neal Furnace Co., Indianapolis, Ind.
 Hart Heat Div., Avery Farm Machinery Co., Peoria, Ill.
 Heil Co., Milwaukee, Wis.
 Henry Furnace Co., Medina, O.
 Herco Oil Burner Corp., Lancaster, Pa.
 Home Furnace Co., Holland, Mich.
 Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill.
 International Heater Co., Utica, N. Y.
 International Sales Co., San Francisco, Calif.
 Iron Fireman Mfg. Co., Cleveland, O.
 Jackson & Church Co., Saginaw, Mich.
 Kalamazoo Furnace & Appliance Mfg. Co., Kalamazoo, Mich.
 Kaustine Furnace & Tank Corp., Perry, N. Y.
 Kleer-Kleen Mfg. Co., Hayward, Calif.
 Ko-Z-Aire Products, Inc., Red Oak, Ia.
 Leeson Air Conditioning Corp., Detroit, Mich.
 Lennox Furnace Co., Marshalltown, Ia.
 Lincoln Furnace Co., Inc., Hawthorne, N. J.
 Little Burner Co., Inc., H. C., San Rafael, Calif.
 Magic Chef, Inc., St. Louis, Mo.
 Majestic Co., Inc., Huntington, Ind.
 Mawflower Air Conditioners, Inc., St. Paul, Minn.
 McDonald Mfg. Co., A. Y., Dubuque, Ia.
 McPherson Furnace & Supply Co., Portland, Ore.
 Meyer Furnace Co., Peoria, Ill.
 Montag Stove & Furnace Works, Portland, Ore.
 Mortemp Div., Mechanical Products Co., Seattle, Wash.
 Mortemp Products Corp., Rockville, Md.
 Mueller Climatrol, Milwaukee, Wis.
 Norge Heat Div., Borg-Warner Corp., Kalamazoo, Mich.
 Northwest Foundry & Furnace Co., Portland, Ore.
 Norwalk Air Conditioning Corp., South Norwalk, Conn.
 Olsen Mfg. Co., The C. A., Elyria, O.
 Patten Co., J. V., Sycamore, Ill.
 Peerless Furnace and Foundry Co., Indianapolis, Ind.
 Perfection Stove Co., Cleveland, O.
 Quiet Automatic Burner Corp., Newark, N. J.
 Radiant-Aire Corp., Michigan City, Ind.
 Ralph Mfg. Co., Inc., Wadsworth, O.
 Reif-Rexoil, Inc., Buffalo, N. Y.
 Richmond Radiator Co., Affil. Reynolds Metals Co., Metuchen, N. J.
 Roscoe Mfg. Co., Seattle, Wash.
 Round Oak Co., Inc., Dowagiac, Mich.
 Rybolt Heater Co., Ashland, O.
 St. Louis Furnace Mfg. Co., St. Louis, Mo.
 Sandberg Mfg. Co., Portland, Ore.
 Schill Mfg. Co., Crestline, O.
 Schwab Furnace Co., Milwaukee, Wis.
 Stewart-Warner Corp., U. S. Machine Div., Lebanon, Ind.
 Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elvria, O.
 Superior Furnace & Mfg. Co., Plymouth, Mich.
 Surface Combustion Corp., Toledo, O.
 Syncromatic Corp., Watertown, Wis.
 Thatcher Furnace Co., Garwood, N. J.
 Thermo-Products, Inc., North Judson, Ind.
 Timken Silent Automatic Div., Rockwell Spring and Axle Co., Jackson, Mich.
 Tjernlund Mfg. Co., St. Paul, Minn.
 Toridheat Div., Cleveland Steel Products Corp., Cleveland, O.
 United States Radiator Corp., Detroit, Mich.
 Waterman-Waterbury Co., Minneapolis, Minn.
 Wayne Home Equipment Co., Inc., Fort Wayne, Ind.
 Williams Div., Eureka-Williams Co., Div. of Henney Motor Co., Inc., Bloomington, Ill.
 Williamson Heater Co., Cincinnati, O.
 York-Shipley, Inc., York, Pa.
 Zick Sheet Metal Works, Dearborn, Mich.

FURNACES, FORCED WARM AIR, ELECTRIC

Residential only

Electric Heating Products Co., Phoenix, Ariz.
 Electromode Corp., Rochester, N.Y.
 Gray & Dudley Co., Nashville, Tenn. (basement, utility room)
 Hart Heat Div., Avery Farm Machinery Co., Peoria, Ill.
 Heating Assurance, Inc., Spokane, Wash.
 Montag Stove & Furnace Works, Portland, Ore.

FURNACES, FORCED WARM AIR, FLOOR, GAS FIRED

Kleer-Kleen Mfg. Co., Hayward, Calif.

FURNACES, FORCED WARM AIR, FLOOR OIL FIRED

Kleer-Kleen Mfg. Co., Hayward, Calif.
 Thermo Products, Inc., North Judson, Ind.

FURNACES, FORCED WARM AIR, HIGHBOY, COAL FIRED, STEEL

For Basement or Utility Room Installations

Campbell Heating Co., Des Moines, Ia.
 Hall-Neal Furnace Co., Indianapolis, Ind.
 Jackson & Church Co., Saginaw, Mich.
 Lennox Furnace Co., Marshalltown, Iowa.
 Montag Stove & Furnace Works, Portland, Ore.
 Olsen Mfg. Co., C. A., Elyria, Ohio.
 Peerless Furnace and Foundry Co., Indianapolis, Ind.
 Round Oak Co., Inc., of Indiana, Dowagiac, Mich.
 Sandberg Mfg. Co., Portland, Ore.
 Souther Iron Co., E. E., St. Louis, Mo.
 Waterman-Waterbury Co., Minneapolis, Minn.

FURNACES, FORCED WARM AIR, HIGHBOY, GAS FIRED, CAST IRON

For Basement or Utility Room Installations

American Foundry & Furnace Co., Bloomington, Ill.
 General Electric Co., Air Conditioning Div., Bloomfield, N. J.
 Hart Heat Div., Avery Farm Machinery Co., Peoria, Ill.
 Henry Furnace Co., Medina, Ohio.
 Herbster Products Co., Cleveland, O.
 International Oil Burner Co., St. Louis, Mo.
 Kresky Mfg. Co., Inc., Petaluma, Calif.
 Mueller Climatrol, Milwaukee, Wis.
 Olsen Mfg. Co., C. A., Elyria, Ohio.
 Richmond Radiator Co., Affil. Reynolds Metals Co., Metuchen, N. J.
 Rybolt Heater Co., Ashland, Ohio.
 Souther Iron Co., E. E., St. Louis, Mo.
 Surface Combustion Corp., Toledo, Ohio.

FURNACES, FORCED WARM AIR, HIGHBOY, GAS FIRED, STEEL

For Basement or Utility Room Installations

Advance Furnace Co., Wichita, Kans.
 Agricola Furnace Co., Inc., Gadsden, Ala.
 Airtemp Div., Chrysler Corp., Davron, Ohio.
 Airwasher Corp., Eaton Rapids, Mich.
 Aladdin Heating Corp., San Leandro, Calif.
 Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
 Armstrong Furnace Co., Columbus, Ohio.
 Auburn Burner Co., Auburn, Ind.
 Automatic Fired Corp., St. Louis, Mo.
 Barber Gas Burner Co., Cleveland, O.
 Bard Mfg. Co., Bryan, Ohio.
 Berger Furnace Corp., Belle Vernon, Pa.
 Brandes Co., Madison, Wis.
 Bryant Heater Div., Affiliated Gas Equipment, Inc., Cleveland, Ohio.
 Campbell Heating Co., Des Moines, Ia.
 Century Engineering Corp., Cedar Rapids, Iowa.
 Coleman Co., Inc., Wichita, Kans.
 Conco Engineering Works, Mendota, Ill.
 Connecticut State Furnace Co., Bridgeport, Conn.
 Consolidated Industries, Inc., Lafayette, Ind.
 Cox Mfg. Co., Ridgeville, Ind.
 Crane Co., Chicago, Ill.
 Dalzen Mfg. Co., St. Clair, Mich.
 Day & Night Div., Affiliated Gas Equipment, Inc., Monrovia, Calif.
 Delco Appliance Div., General Motors Corp., Rochester, N. Y.
 Delta Heating Corp., Trenton, N.J.
 Dowagiac Steel Furnace Co., Dowagiac, Mich.
 Farquhar Furnace Co., Wilmington, Ohio.

Firewel Co., Inc., Buffalo, N.Y.
 Floral City Heater Co., Monroe, Mich.
 Fluid Heat Div. Anchor Post Products, Inc., Baltimore, Md.
 Forest City Foundries Co., Niagara Furnace Div., Cleveland, Ohio.
 Fraser & Johnston Co., San Francisco, Calif.
 Front Rank Furnace Co., Div. Liberty Foundry Co., St. Louis, Mo.
 Glasby Mfg. Co., Inc., J. P., Belleville, N. J.
 Green Colonial Furnace Co., Des Moines, Iowa.
 Gross-Aire Mfg. Co., St. Louis, Mo.
 Hall-Neal Furnace Co., Indianapolis, Ind.
 Hart Heat Div., Avery Farm Machinery Co., Peoria, Ill.
 Heating Equipment Mfg. Co., San Francisco, Calif.
 Heating Specialties Co., Baltimore, Md.
 Heil Co., Milwaukee, Wis.
 Henderson Furnace & Mfg. Corp., Sebastopol, Calif.
 Henry Furnace Co., Medina, Ohio.
 Hess Co., Chicago, Ill.
 Hunt Heater Corp., Nashville, Tenn.
 Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill.
 Ingersoll Products Div., Borg-Warner Corp., Kalamazoo, Mich.
 International Heater Co., Utica, N.Y.
 International Sales Co., San Francisco, Calif.
 Iron Fireman Mfg. Co., Cleveland, Ohio.
 Jackson & Church Co., Saginaw, Mich.
 Jet-Heat, Inc., Englewood, N. J.
 Jetronaire, Inc., Pittsburgh, Pa.
 Kalamazoo Furnace & Appliance Mfg. Co., Kalamazoo, Mich.
 Kaustine Furnace & Tank Corp., Perry, N. Y.
 Keith Furnace Co., Des Moines, Ia.
 Kleenair Furnace Co., Portland, Ore.
 Ko-Z-Aire Products, Inc., Red Oak, Iowa.
 Kresky Mfg. Co., Inc., Petaluma, Calif.
 Leeson Air Conditioning Corp., Detroit, Mich.
 Lennox Furnace Co., Marshalltown, Iowa.
 Lincoln Furnace Co., Inc., Hawthorne, N. J.
 Little Burner Co., Inc., H. C., San Rafael, Calif.
 Lundt, Inc., Ernest C., Little Falls, N. J.
 Magic Chef, Inc., St. Louis, Mo.
 Majestic Co., Inc., Huntington, Ind.
 Mawflower Air Conditioners, Inc., St. Paul, Minn.
 McDonald Mfg. Co., A. Y., Dubuque, Ia.
 Metro Metal Mfg. Co., Holt, Mich.
 Meyer Furnace Co., Peoria, Ill.
 Montag Stove & Furnace Works, Portland, Ore.
 Morrison Steel Products, Inc., Buffalo, N. Y.
 Mueller Climatrol, Milwaukee, Wis.
 Norge Heat Div., Borg-Warner Corp., Kalamazoo, Mich.
 Norman Products Co., Inc., Columbus, Ohio.
 Norwalk Air Conditioning Corp., South Norwalk, Conn.
 Olsen Mfg. Co., C. A., Elyria, Ohio.
 Pacific Gas Heating Co., San Francisco, Calif.
 Patten Co., J. V., Sycamore, Ill.
 Payne Furnace Div. Affiliated Gas Equipment, Inc., Monrovia, Calif.
 Peerless Furnace and Foundry Co., Indianapolis, Ind.
 Pennsylvania Furnace & Iron Co., Warren, Pa.
 Perfection Stove Co., Cleveland, Ohio.
 Petro Div., Iron Fireman Mfg. Co., Cleveland, O.
 Premier Furnace Co., Dowagiac, Mich.
 Radiant-Aire Corp., Michigan City, Ind.
 Radiation Furnace Corp., Benton Harbor, Mich.
 Ralph Mfg. Co., Inc., Wadsworth, O.
 Rheem Mfg. Co., Chicago, Ill.
 Richmond Radiator Co., Affil. Reynolds Metals Co., Metuchen, N. J.
 Roberts-Gordon Appliance Co., Buffalo, N. Y.
 Round Oak Co., Dowagiac, Mich.
 Royal Jet, Inc., Alhambra, Calif.
 Ruby Management Co., Pittsburgh, Pa.
 Rybolt Heater Co., Ashland, Ohio.
 St. Louis Furnace Mfg. Co., St. Louis, Mo.
 Schill Mfg. Co., Crestline, O.
 Schwab Furnace Co., Milwaukee, Wis.
 Sequoia Mfg. Co., San Carlos, Calif.
 Sheet Metal Mfg. Co., Youngstown, O.
 Smith Corp., A. O., Permaglas Div., Kankakee, Ill.
 Souther Iron Co., E. E., St. Louis, Mo.
 Southwest Mfg. Co., Aurora, Mo.
 Steel City Furnace Co., Springdale, Pa.
 Steel Products Engineering Co., Combustioneer Div., Springfield, O.
 Stewart-Warner Corp., U. S. Machine Div., Lebanon, Ind.
 Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.

Superior Furnace & Mfg. Co., Plymouth, Mich.
 Sure Comfort Furnace Co., Forest Park, Ill.
 Surface Combustion Corp., Toledo, O.
 Sutton Corp., O. A., Wichita, Kans.
 Syncromatic Corp., Watertown, Wis.
 Temco, Inc., Nashville, Tenn.
 Thatcher Furnace Co., Garwood, N.J.
 Thermo-Products, Inc., North Judson, Ind.
 Timken Silent Automatic Div., Rockwell Spring and Axle Co., Jackson, Mich.
 Tjernlund Mfg. Co., St. Paul, Minn.
 Toridheat Div. Cleveland Steel Products Corp., Cleveland, Ohio.
 Turb-O-Tube Furnace, Inc., Buffalo, N. Y.
 United States Radiator Corp., Detroit, Mich.
 Utility Appliance Corp., Los Angeles, Calif.
 Viking Mfg. Corp., Cleveland, Ohio.
 Waterman-Waterbury Co., Minneapolis, Minn.
 Wayne Home Equipment Co., Inc., Fort Wayne, Ind.
 Williams Div., Eureka-Williams Co., Div. of Henney Motor Co., Inc., Bloomington, Ill.
 Williamson Heater Co., Cincinnati, Ohio.
 York-Shipley, Inc., York, Pa.
 Zink Co., John, Tulsa, Okla.

FURNACES, FORCED WARM AIR, HIGHBOY, OIL FIRED, STEEL

For Basement or Utility Room Installations

Airtemp Div., Chrysler Corp., Dayton, Ohio.
 Airwasher Corp., Eaton Rapids, Mich.
 American Furnace Co., St. Louis, Mo.
 Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
 Arcweld Mfg. Co., Inc., Seattle, Wash.
 Armstrong Furnace Co., Columbus, Ohio.
 Auburn Burner Co., Auburn, Ind.
 Barber Gas Burner Co., Cleveland, O.
 Bard Mfg. Co., Bryan, Ohio.
 Benner-Nawman, Inc., Oakland, Calif.
 Berger Furnace Corp., Belle Vernon, Pa.
 Besser Metal Products Corp., Charlotte, N. C.
 Brandes Co., Madison, Wis.
 Bryant Heater Div. Affiliated Gas Equipment, Inc., Cleveland, Ohio.
 Campbell Heating Co., Des Moines, Ia.
 Cary Mfg. Co., Waupaca, Wis.
 Century Engineering Corp., Cedar Rapids, Iowa.
 Certified Furnace Corp., Trenton, N. J.
 Coleman Co., Inc., Wichita, Kans.
 Conco Engineering Works, Mendota, Ill.
 Crane Co., Chicago, Ill.
 Delco Appliance Div., General Motors Corp., Rochester, N. Y.
 Delta Heating Corp., Trenton, N.J.
 DeSoto Oil Burner Corp., York, Pa.
 Domestic Mfg. Co., Seattle, Wash.
 Dowagiac Steel Furnace Co., Dowagiac, Mich.
 Ducane Heating Corp., Hawthorne, N. J.
 Duo-Therm Div., Motor Wheel Corp., Lansing, Mich.
 Engineering Industries Co., Ltd., Toronto, Ont., Canada.
 Enico Products, Detroit, Mich.
 Farquhar Furnace Co., Wilmington, Ohio.
 Firewel Co., Inc., Buffalo, N.Y.
 Floral City Heater Co., Monroe, Mich.
 Fluid Heat Div. Anchor Post Products, Inc., Baltimore, Md.
 Forest City Foundries Co., Niagara Furnace Div., Cleveland, O.
 Front Rank Furnace Co., Div. Liberty Foundry Co., St. Louis, Mo.
 General Automatic Products Corp., Baltimore, Md.
 General Electric Co., Air Conditioning Div., Bloomfield, N. J.
 Gilbert & Barker Mfg. Co., West Springfield, Mass.
 Gillen Co., J. L., Detroit, Mich.
 Glasby Mfg. Co., Inc., J. P., Belleville, N. J.
 Green Colonial Furnace Co., Des Moines, Iowa.
 Gross-Aire Mfg. Co., St. Louis, Mo.
 Hall-Neal Furnace Co., Indianapolis, Ind.
 Hart Heat Div., Avery Farm Machinery Co., Peoria, Ill.
 Harvey-Whipple, Inc., Springfield, Mass.
 Heating Specialties Co., Baltimore, Md.
 Heil Co., Milwaukee, Wis.
 Henry Furnace Co., Medina, Ohio.
 Herco Oil Burner Corp., Lancaster, Pa.
 Hess Co., Chicago, Ill.
 Home Furnace Co., Holland, Mich.
 Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill.
 Ingersoll Products Div., Borg-Warner Corp., Kalamazoo, Mich.
 International Heater Co., Utica, N.Y.
 International Oil Burner Co., St. Louis, Mo.
 International Sales Co., San Francisco, Calif.
 Iron Fireman Mfg. Co., Cleveland, Ohio.

Jackson & Church Co., Saginaw, Mich.
 Jet-Heat, Inc., Englewood, N. J.
 Jetronaire, Inc., Pittsburgh, Pa.
 Johnson Heater Corp., Chelsea, Mass.
 Kalamazoo Furnace & Appliance Mfg. Co., Kalamazoo, Mich.
 Kaustine Furnace & Tank Corp., Perry, N. Y.
 Kleenair Furnace Co., Portland, Ore.
 Kleer-Kleen Mfg. Co., Hayward, Calif.
 Ko-Z-Aire Products, Inc., Red Oak, Iowa.
 Kresky Mfg. Co., Petaluma, Calif.
 Laco Oil Burner Co., Inc., Griswold, Iowa.
 Leeson Air Conditioning Corp., Detroit, Mich.
 Lennox Furnace Co., Marshalltown, Iowa.
 Lincoln Furnace Co., Inc., Hawthorne, N. J.
 Little Burner Co., Inc., H. C., San Rafael, Calif.
 Lundt, Inc., Ernest C., Little Falls, N. J.
 Magic Chef, Inc., St. Louis, Mo.
 Majestic Co., Inc., Huntington, Ind.
 Mayflower Air Conditioners, Inc., St. Paul, Minn.
 McPherson Furnace & Supply Co., Portland, Ore.
 McDonald Mfg. Co., A. Y., Dubuque, Ia.
 Metro Metal Mfg. Co., Holt, Mich.
 Meyer Furnace Co., Peoria, Ill.
 Morrison Steel Products, Inc., Buffalo, N. Y.
 Mortemp Div., Mechanical Products Co., Seattle, Wash.
 Mueller Climatrol, Milwaukee, Wis.
 Norge Heat Div., Borg-Warner Corp., Kalamazoo, Mich.
 Northwest Foundry & Furnace Co., Portland, Ore.
 Northwest Metal Products, Inc., Seattle, Wash.
 Norwalk Air Conditioning Corp., South Norwalk, Conn.
 Olsen Mfg. Co., C. A., Elyria, Ohio.
 Paragon Oil Burner Corp., Brooklyn, N. Y.
 Patten Co., J. V., Sycamore, Ill.
 Peerless Furnace and Foundry Co., Indianapolis, Ind.
 Perfection Stove Co., Cleveland, Ohio.
 Penn Boiler & Burner Mfg. Corp., Lancaster, Pa.
 Pennsylvania Furnace & Iron Co., Warren, Pa.
 Petro Div., Iron Fireman Mfg. Co., Cleveland, Ohio.
 Premier Furnace Co., Dowagiac, Mich.
 Quiet Automatic Burner Corp., Newark, N. J.
 Radiant-Aire Corp., Michigan City, Ind.
 Radiation Furnace Corp., Benton Harbor, Mich.
 Ralph Mfg. Co., Inc., Wadsworth, O.
 Reif-Rexoil, Inc., Buffalo, N. Y.
 Republic Products Co., Philadelphia, Pa.
 Rheem Mfg. Co., Chicago, Ill.
 Richmond Radiator Co., Affil. Reynolds Metals Co., Metuchen, N. J.
 Roscoe Mfg. Co., Seattle, Wash.
 Round Oak Co., Inc., Dowagiac, Mich.
 Ruby Management Co., Pittsburgh, Pa.
 Rybolt Heater Co., Ashland, Ohio.
 St. Louis Furnace Mfg. Co., St. Louis, Mo.
 Sandberg Mfg. Co., Portland, Ore.
 Schill Mfg. Co., Crestline, O.
 Schwab Furnace Co., Milwaukee, Wis.
 Silent Glow Oil Burner Co., Hartford, Conn.
 Smith Corp., A. O., Permaglas Div., Kankakee, Ill.
 Souther Iron Co., E. E., St. Louis, Mo.
 Steel City Furnace Co., Springdale, Pa.
 Steel Products Engineering Co., Combustioneer Div., Springfield, O.
 Stewart-Warner Corp., U. S. Machine Div., Lebanon, Ind.
 Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
 Superior Furnace & Mfg. Co., Plymouth, Mich.
 Sure Comfort Furnace Co., Forest Park, Ill.
 Surface Combustion Corp., Toledo, O.
 Syncromatic Corp., Watertown, Wis.
 Thatcher Furnace Co., Garwood, N.J.
 Thermo-Products, Inc., North Judson, Ind.
 Timken Silent Automatic Div., Rockwell Spring and Axle Co., Jackson, Mich.
 Tjeralund Mfg. Co., St. Paul, Minn.
 Toridheet Div., Cleveland Steel Products Corp., Cleveland, Ohio.
 Turb-O-Tube Furnace, Inc., Buffalo, N. Y.
 United States Radiator Corp., Detroit, Mich.
 Viking Mfg. Corp., Cleveland, Ohio.
 Waltham Oil Burner Co., E. Boston, Mass.
 Waterman-Waterbury Co., Minneapolis, Minn.
 Wayne Home Equipment Co., Inc., Fort Wayne, Ind.
 Weatherall Engineers, Inc., Providence, R. I.
 Williams Div., Eureka-Williams Co., Div. of Henney Motor Co., Inc., Bloomington, Ill.
 Williamson Heater Co., Cincinnati, Ohio.
 York-Shipley, Inc., York, Pa.
 Zick Sheet Metal Works, Dearborn, Mich.

FURNACES, FORCED WARM AIR, HIGHBOY, COAL FIRED, STEEL

For Close Clearance (2 in. or under) Installations
 Peerless Furnace and Foundry Co., Indianapolis, Ind.
 Round Oak Co., Inc., Dowagiac, Mich.
 Waterman-Waterbury Co., Minneapolis, Minn.

FURNACES, FORCED WARM AIR, HIGHBOY, GAS FIRED, CAST IRON

For Close Clearance (2 in. or under) Installations
 General Electric Co., Air Conditioning Div., Bloomfield, N. J.
 Herbster Products Co., Cleveland, O.

FURNACES, FORCED WARM AIR, HIGHBOY, GAS FIRED, STEEL

For Close Clearance (2 in. or under) Installations

Airtemp Div., Chrysler Corp., Dayton, O.
 American Furnace Co., St. Louis, Mo.
 Anchor Div., Stratton & Terstege Co., Inc., New Albany, Ind.
 Armstrong Furnace Co., Columbus, O.
 Automatic Firing Corp., St. Louis, Mo.
 Barber Gas Burner Co., Cleveland, O.
 Bard Mfg. Co., Bryan, O.
 Berger Furnace Corp., Belle Vernon, Pa.
 Century Engineering Corp., Cedar Rapids, Ia.
 Conco Engineering Works, Heating Div., Mendota, Ill.
 Consolidated Industries, Inc., Lafayette, Ind.
 Crane Co., Chicago, Ill.
 Day & Night Div., Affiliated Gas Equipment, Inc., Monrovia, Calif.
 Delco Appliance Div., General Motors Corp., Rochester, N. Y.
 Dornback Furnace & Foundry Co., Cleveland, O.
 Farquhar Furnace Co., Wilmington, O.
 Firewel Co., Inc., Buffalo, N. Y.
 Floral City Heater Co., Monroe, Mich.
 Forest City Foundries Co., Niagara Furnace Div., Cleveland, O.
 Fraser & Johnston Co., San Francisco, Calif.
 Heating Equipment Mfg. Co., San Francisco, Calif.
 Heating Specialties Co., Baltimore, Md.
 Heil Co., Milwaukee, Wis.
 Henderson Furnace & Mfg. Corp., Sebastopol, Calif.
 Henry Furnace Co., Medina, O.
 Hess Co., The, Chicago, Ill.
 Hunt Heater Corp., Nashville, Tenn.
 Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill.
 International Heater Co., Utica, N. Y.
 International Sales Co., San Francisco, Calif.
 Iron Fireman Mfg. Co., Cleveland, O.
 Jackson & Church Co., Saginaw, Mich.
 Kalamazoo Furnace & Appliance Mfg. Co., Kalamazoo, Mich.
 Kaustine Furnace & Tank Corp., Perry, N. Y.
 Ko-Z-Aire Products, Inc., Red Oak, Ia.
 Kresky Mfg. Co., Inc., Petaluma, Calif.
 Leeson Air Conditioning Corp., Detroit, Mich.
 Lennox Furnace Co., Marshalltown, Ia.
 Little Burner Co., Inc., H. C., San Rafael, Calif.
 Majestic Co., Inc., Huntington, Ind.
 McDonald Mfg. Co., A. Y., Dubuque, Ia.
 Meyer Furnace Co., Peoria, Ill.
 Mueller Climatrol, Milwaukee, Wis.
 Olsen Mfg. Co., The C. A., Elyria, O.
 Pacific Gas Heating Co., San Francisco, Calif.
 Patten Co., J. V., Sycamore, Ill.
 Payne Furnace Div., Affiliated Gas Equipment, Inc., Monrovia, Calif.
 Peerless Furnace and Foundry Co., Indianapolis, Ind.
 Peerless Mfg. Corp., Louisville, Ky.
 Perfection Stove Co., Cleveland, O.
 Petro Div., Iron Fireman Mfg. Co., Cleveland, O.
 Ralph Mfg. Co., Inc., Wadsworth, O.
 Rasch Mfg. Corp., Kansas City, Mo.
 Rheem Mfg. Co., Chicago, Ill.
 Richmond Radiator Co., Affil. Reynolds Metals Co., Metuchen, N. J.
 Round Oak Co., Inc., Dowagiac, Mich.
 Royal Jet, Inc., Alhambra, Calif.
 Rybolt Heater Co., Ashland, O.
 Ryniker Steel Products Co., Billings, Mont.
 Sequoia Mfg. Co., San Carlos, Calif.
 Southwest Mfg. Co., Aurora, Mo.
 Stewart-Warner Corp., U. S. Machine Div., Lebanon, Ind.

Sheet Metal Mfg. Co., Youngstown, O.
 Sunbeam Air Conditioner Div., American Radiator & Standard
 Sanitary Corp., Elyria, O.
 Sutton Corp., O. A., Wichita, Kans.
 Syncromatic Corp., Watertown, Wis.
 Thatcher Furnace Co., Garwood, N. J.
 Timken Silent Automatic Div., Rockwell Spring and Axle Co.,
 Jackson, Mich.
 United States Radiator Corp., Detroit, Mich.
 Waterman-Waterbury Co., Minneapolis, Minn.
 Wayne Home Equipment Co., Inc., Fort Wayne, Ind.
 Williams Div., Eureka-Williams Co., Div. of Henney Motor
 Co., Inc., Bloomington, Ill.
 Williamson Heater Co., Cincinnati, O.

FURNACES, FORCED WARM AIR, HIGHBOY, OIL FIRED, CAST IRON

For Close Clearance (2 in. or under) Installations
 Arcweld Mfg. Co., Inc., Seattle, Wash.
 Kalamazoo Furnace & Appliance Mfg. Co., Kalamazoo, Mich.

FURNACES, FORCED WARM AIR, HIGHBOY, OIL FIRED, STEEL

For Close Clearance (2 in. or under) Installations
 Airtemp Div., Chrysler Corp., Dayton, O.
 American Furnace Co., St. Louis, Mo.
 Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
 Armstrong Furnace Co., Columbus, O.
 Bard Mfg. Co., Bryan, O.
 Berger Furnace Corp., Belle Vernon, Pa.
 Century Engineering Corp., Cedar Rapids, Ia.
 Conco Engineering Works, Heating Div., Mendota, Ill.
 Connecticut State Furnace Co., Bridgeport, Conn.
 Deico Appliance Div., General Motors Corp., Rochester, N. Y.
 Delta Heating Corp., Trenton, N. J.
 Firewel Co., Inc., Buffalo, N. Y.
 Floral City Heater Co., Monroe, Mich.
 General Electric Co., Air Conditioning Div., Bloomfield, N. J.
 Gross-Aire Mfg. Co., St. Louis, Mo.
 Heil Co., Milwaukee, Wis.
 Henry Furnace Co., Medina, O.
 Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill.
 International Heater Co., Utica, N. Y.
 Iron Fireman Mfg. Co., Cleveland, O.
 Jackson & Church Co., Saginaw, Mich.
 Kaustine Furnace & Tank Corp., Perry, N. Y.
 Ko-Z-Aire Products, Inc., Red Oak, Ia.
 Kresky Mfg. Co., Inc., Petaluma, Calif.
 Lennox Furnace Co., Marshalltown, Ia.
 Little Burner Co., Inc., H. C., San Rafael, Calif.
 Majestic Co., Inc., Huntington, Ind.
 McDonald Mfg. Co., A. Y., Dubuque, Ia.
 Montag Stove & Furnace Works, Portland, Ore.
 Mortemp Div., Mechanical Products Co., Seattle, Wash.
 Mueller Climatrol, Milwaukee, Wis.
 Olsen Mfg. Co., The C. A., Elyria, O.
 Patten Co., J. V., Sycamore, Ill.
 Peerless Furnace and Foundry Co., Indianapolis, Ind.
 Perfection Stove Co., Cleveland, O.
 Ralph Mfg. Co., Inc., Wadsworth, O.
 Richmond Radiator Co., Affil. Reynolds Metals Co., Metuchen,
 N. J.
 Rybolt Heater Co., Ashland, O.
 Sandberg Mfg. Co., Portland, Ore.
 Sunbeam Air Conditioner Div., American Radiator & Standard
 Sanitary Corp., Elyria, O.
 Surface Combustion Corp., Toledo, O.
 Syncromatic Corp., Watertown, Wis.
 Thatcher Furnace Co., Garwood, N. J.
 Toridheet Div., Cleveland Steel Products Corp., Cleveland, O.
 United States Radiator Corp., Detroit, Mich.
 Waterman-Waterbury Co., Minneapolis, Minn.
 Wayne Home Equipment Co., Inc., Fort Wayne, Ind.
 Williamson Heater Co., Cincinnati, O.

FURNACES, FORCED WARM AIR, HIGHBOY, GAS FIRED, CAST IRON

For Zero Clearance Installations
 Barber Gas Burner Co., Cleveland, O.
 Herbster Products Co., Cleveland, O.

FURNACES, FORCED WARM AIR, HIGHBOY, GAS FIRED, STEEL

For Zero Clearance Installations
 Advance Furnace Co., Wichita, Kans.
 Bryant Heater Div., Affiliated Gas Equipment, Inc., Cleveland,
 O.
 Century Engineering Corp., Cedar Rapids, Ia.
 Coleman Co., Inc., Wichita, Kans.
 Crane Co., Chicago, Ill.
 Day & Night Div., Affiliated Gas Equipment, Inc., Monrovia,
 Calif.
 Fraser & Johnston Co., San Francisco, Calif.
 Henderson Furnace & Mfg. Corp., Sebastopol, Calif.
 Henry Furnace Co., Medina, O.
 Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill.
 International Oil Burner Co., St. Louis, Mo.
 International Sales Co., San Francisco, Calif.
 Kilbury Mfg. Co., Lawndale, Calif.
 Ko-Z-Aire Products, Inc., Red Oak, Ia.
 Lennox Furnace Co., Marshalltown, Ia.
 Little Burner Co., Inc., H. C., San Rafael, Calif.
 McDonald Mfg. Co., A. Y., Dubuque, Ia.
 Mission Appliance Corp., Hawthorne, Calif.
 Norman Products Co., Inc., Columbus, O.
 Olsen Mfg. Co., The C. A., Elyria, O.
 Payne Furnace Div., Affiliated Gas Equipment, Inc., Monrovia,
 Calif.
 Peerless Furnace and Foundry Co., Indianapolis, Ind.
 Rheem Mfg. Co., Chicago, Ill.
 Round Oak Co., Inc., Dowagiac, Mich.
 Royal Jet, Inc., Alhambra, Calif.
 Ryniker Steel Products Co., Billings, Mont.
 Sequoia Mfg. Co., San Carlos, Calif.
 Smith Corp., A. O., Permaglas Div., Kankakee, Ill.
 Sunbeam Air Conditioner Div., American Radiator & Standard
 Sanitary Corp., Elyria, O.
 Thatcher Furnace Co., Garwood, N. J.
 Utility Appliance Corp., Los Angeles, Calif.
 Zink Co., John, Tulsa, Okla.

FURNACES, FORCED WARM AIR, HIGHBOY, OIL FIRED, STEEL

For Zero Clearance Installations
 Barber Gas Burner Co., Cleveland, O.
 Century Engineering Corp., Cedar Rapids, Ia.
 Coleman Co., Inc., Wichita, Kans.
 Henry Furnace Co., Medina, O.
 Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill.
 Ko-Z-Aire Products, Inc., Red Oak, Ia.
 Lennox Furnace Co., Marshalltown, Ia.
 Little Burner Co., Inc., H. C., San Rafael, Calif.
 McDonald Mfg. Co., A. Y., Dubuque, Ia.
 Olsen Mfg. Co., The C. A., Elyria, O.
 Ralph Mfg. Co., Inc., Wadsworth, O.
 Sunbeam Air Conditioner Div., American Radiator & Standard
 Sanitary Corp., Elyria, O.
 Thatcher Furnace Co., Garwood, N. J.

FURNACES, FORCED WARM AIR, HORIZONTAL, GAS FIRED, CAST IRON

For Attic, Crawl Space or Suspended Installations
 Automatic Gas Equipment Co., Pittsburgh, Pa.
 General Electric Co., Air Conditioning Div., Bloomfield, N. J.

FURNACES, FORCED WARM AIR, HORIZONTAL, GAS FIRED, STEEL

For Attic, Crawl Space or Suspended Installations
 Agricola Furnace Co., Inc., Gadsden, Ala.
 Air Conditioning Engineering Co., Cambridge, Mass.
 Allan Engineering Co., Dallas, Texas.
 American Furnace Co., St. Louis, Mo.
 Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
 Armstrong Furnace Co., Columbus, Ohio.
 Auburn Burner Co., Auburn, Ind.
 Bard Mfg. Co., Bryan, O.
 Barwick Mfg. Corp., Wichita, Kans.
 Berger Furnace Corp., Belle Vernon, Pa.
 Bryant Heater Div., Affiliated Gas Equipment, Inc., Cleveland,
 Ohio.
 Century Engineering Corp., Cedar Rapids, Ia.
 Chicago Steel Furnace Co., Chicago, Ill.
 Coleman Co., Inc., Wichita, Kans.
 Columbia Specialty Co., Inc., Chevy Chase, Md.
 Consolidated Industries, Inc., Lafayette, Ind.

Cox Mfg. Co., Ridgeville, Ind.
Day & Night Div., Affiliated Gas Equipment, Inc., Monrovia, Calif.

Delta Heating Corp., Trenton, N. J.
Dowagiac Steel Furnace Co., Dowagiac, Mich.
Fraser & Johnston Co., San Francisco, Calif.
General Automatic Products Corp., Baltimore, Md.
General Gas Light Co., Kalamazoo, Mich.
Great National Air Conditioning Corp., Oklahoma City, Okla.
Green Colonial Furnace Co., Des Moines, Ia.
Hastings Air Cond. Co., Inc., Hastings, Nebr.
Heil Co., Milwaukee, Wis.
Henderson Furnace & Mfg. Corp., Sebastopol, Calif.
Henry Furnace Co., Medina, Ohio.
International Heater Co., Utica, N. Y.
International Sales Co., San Francisco, Calif.
Iron Fireman Mfg. Co., Cleveland, O.
Jackson & Church Co., Saginaw, Mich.
Jet-Heat, Inc., Englewood, N. J.
Kleer-Kleen Mfg. Co., Hayward, Calif.
Lennox Furnace Co., Marshalltown, Iowa.
Little Burner Co., Inc., H. C., San Rafael, Calif.
Magic Chef, Inc., St. Louis, Mo.
Majestic Co., Inc., Huntington, Ind.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Metzger Machine & Engineering Co., Milwaukee, Wis.
Meyer Furnace Company, Peoria, Ill.
Mueller Climatrol, Milwaukee, Wis.
National Heater Co., St. Paul, Minn.
Norge Heat Div., Borg-Warner Corp., Kalamazoo, Mich.
Norman Products Co., Inc., Columbus, Ohio.
Norwalk Air Conditioning Corp., South Norwalk, Conn.
Olsen Mfg. Co., The C. A., Elyria, O.
OverHead Heaters, Inc., Detroit, Mich.
Payne Furnace Div. Affiliated Gas Equipment, Inc., Monrovia, Calif.
Peerless Furnace and Foundry Co., Indianapolis, Ind.
Perfection Stove Co., Cleveland, O.
Prat-Daniel Corp., South Norwalk, Conn.
Ralph Mfg. Co., Inc., Wadsworth, O.
Rasch Mfg. Corp., Kansas City, Mo.
Reznor Mfg. Co., Mercer, Pa.
Rheem Mfg. Co., Chicago, Ill.
Round Oak Co., Inc., Dowagiac, Mich.
Royal Jet, Inc., Alhambra, Calif.
Rybolt Heater Co., Ashland, Ohio.
Sequoia Mfg. Co., San Carlos, Calif.
Sheet Metal Mfg. Co., Youngstown, O.
Southwest Mfg. Co., Aurora, Mo.
Stewart-Warner Corp., U. S. Machine Div., Lebanon, Ind.
Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
Superior Furnace & Mfg. Co., Plymouth, Mich.
Surface Combustion Corp., Toledo, Ohio.
Sutton Corp., O. A., Wichita, Kans.
Temco, Inc., Nashville, Tenn.
Thatcher Furnace Co., Garwood, N. J.
Tjernlund Mfg. Co., St. Paul, Minn.
Universal Products Mfg. Corp., Auburn, Ind.
United States Radiator Corp., Detroit, Mich.
Utility Appliance Corp., Los Angeles, Calif.
Wayne Home Equipment Co., Inc., Fort Wayne, Ind.
Williamson Heater Co., Cincinnati, Ohio.

FURNACES, FORCED WARM AIR, HORIZONTAL, OIL FIRED, STEEL

For Attic, Crawl Space or Suspended Installations

Air Conditioning Engineering Co., Cambridge, Mass.
American Furnace Co., St. Louis, Mo.
Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
Armstrong Furnace Co., Columbus, O.
Auburn Burner Co., Auburn, Ind.
Auburn Foundry, Inc., Stoker Div., Auburn, Ind.
Bard Mfg. Co., Bryan, O.
Berger Furnace Corp., Belle Vernon, Pa.
Besser Metal Products Corp., Charlotte, N. C.
Century Engineering Corp., Cedar Rapids, Ia.
Certified Furnace Corp., Trenton, N. J.
Chicago Steel Furnace Co., Chicago, Ill.
Columbia Specialty Co., Inc., Chevy Chase, Md.
Connecticut State Furnace Co., Bridgeport, Conn.
Cox Mfg. Co., Ridgeville, Ind.
Delco Appliance Div., General Motors Corp., Rochester, N. Y.
Delta Heating Corp., Trenton, N. J.
DeSoto Oil Burner Corp., York, Pa.
Dowagiac Steel Furnace Co., Dowagiac, Mich.

Farquhar Furnace Co., Wilmington, O.
Fluid Heat Div., Anchor Post Products, Inc., Baltimore, Md.
Front Rank Furnace Co., Div. Liberty Foundry Co. St. Louis, Mo.

General Automatic Products Corp., Baltimore, Md.
Gilbert & Barker Mfg. Co., West Springfield, Mass.
Green Colonial Furnace Co., Des Moines, Ia.
Hall-Neal Furnace Co., Indianapolis, Ind.
Harvey-Whipple, Inc., Springfield, Mass.
Heil Co., Milwaukee, Wis.
Henry Furnace Co., Medina, O.
Herco Oil Burner Corp., Lancaster, Pa.
International Heater Co., Utica, N. Y.
Iron Fireman Mfg. Co., Cleveland, O.
Jackson & Church Co., Saginaw, Mich.
Jet-Heat, Inc., Englewood, N. J.
Johnson Heater Corp., Chelsea, Mass.
Kaustine Furnace & Tank Corp., Perry, N. Y.
Ko-Z-Aire Products, Inc., Red Oak, Ia.
Lennox Furnace Co., Marshalltown, Ia.
Lincoln Furnace Co., Inc., Hawthorne, N. J.
Little Burner Co., Inc., H. C., San Rafael, Calif.
Mayflower Air Conditioners, Inc., St. Paul, Minn.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
McPherson Furnace & Supply Co., Portland, Ore.
Montag Stove & Furnace Works, Portland, Ore.
Mortemp Div., Mechanical Products Co., Seattle, Wash.
Mueller Climatrol, Milwaukee, Wis.
National Heater Co., St. Paul, Minn.
Norge Heat Div., Borg-Warner Corp., Kalamazoo, Mich.
Northwest Foundry & Furnace Co., Portland, Ore.
Norwalk Air Conditioning Corp., South Norwalk, Conn.
Olsen Mfg. Co., The C. A., Elyria, O.
OverHead Heaters, Inc., Detroit, Mich.
Patten Co., J. V., Sycamore, Ill.
Perfection Stove Co., Cleveland, O.
Petro Div., Iron Fireman Mfg. Co., Cleveland, O.
Prat-Daniel Corp., South Norwalk, Conn.
Quiet Automatic Burner Corp., Newark, N. J.
Ralph Mfg. Co., Inc., Wadsworth, O.
Reif-Rexoil, Inc., Buffalo, N. Y.
Rybolt Heater Co., Ashland, O.
Sandberg Mfg. Co., Portland, Ore.
Silent Glow Oil Burner Co., Hartford, Conn.
Steel Products Engineering Co., Combustioneer Div., Springfield, O.
Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
Superior Furnace & Mfg. Co., Plymouth, Mich.
Thatcher Furnace Co., Garwood, N. J.
Thermo-Products, Inc., North Judson, Ind.
Tjernlund Mfg. Co., St. Paul, Minn.
Tordichee Div., Cleveland Steel Products Corp., Cleveland, O.
Turb-O-Tube Furnace, Inc., Buffalo, N. Y.
United States Radiator Corp., Detroit, Mich.
Universal Products Mfg. Corp., Auburn, Ind.
Viking Mfg. Corp., Cleveland, O.
Waltham Oil Burner Co., Inc., Boston, Mass.
Waterman-Waterbury Co., Minneapolis, Minn.
Wayne Home Equipment Co., Inc., Ft. Wayne, Ind.
Weatherall Engineers, Inc., Providence, R. I.
Williams Div., Eureka-Williams Co., Div. of Henney Motor Co., Inc., Bloomington, Ill.
Williamson Heater Co., Cincinnati, O.
York-Shipley, Inc., York, Pa.

FURNACES, FORCED WARM AIR, LOWBOY, COAL FIRED, CAST IRON

For Basement Installations

American Foundry & Furnace Co., Bloomington, Ill.
Baum Heating, Inc., J. H., Youngstown, Ohio.
Crane Co., Chicago, Ill.
Excelsior Stove & Mfg. Co., Quincy, Ill.
Forest City Foundries Co., Niagara Furnace Div., Cleveland, Ohio.
Green Colonial Furnace Co., Des Moines, Iowa.
Henry Furnace Co., Medina, Ohio.
Home Furnace Co., Holland, Mich.
Keith Furnace Co., Des Moines, Iowa.
Majestic Co., Inc., Huntington, Ind.
Montag Stove & Furnace Works, Portland, Ore.
Mueller Climatrol, Milwaukee, Wis.
National Heater Co., St. Paul, Minn.
Olsen Mfg. Co., C. A., Elyria, Ohio.
Premier Furnace Co., Dowagiac, Mich.
Schwab Furnace Co., Milwaukee, Wis.

Souther Iron Co., E. E., St. Louis, Mo.
 Spear Stove & Heater Co., James, Philadelphia, Pa.
 Steel Products Engineering Co., Combustioneer Div., Springfield, Ohio.
 United States Radiator Corp., Detroit, Mich.
 XXth Century Heating & Ventilating Co., Akron, Ohio.

FURNACES, FORCED WARM AIR, LOWBOY, COAL FIRED, STEEL

For Basement Installations

American Furnace Co., St. Louis, Mo.
 Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
 Arcweld Mfg. Co., Inc., Seattle, Wash.
 Armstrong Furnace Co., Columbus, Ohio.
 Bard Mfg. Co., Bryan, Ohio.
 Beck Engineering Combustion Company, St. Louis, Mo.
 Berger Furnace Corp., Belle Vernon, Pa.
 Campbell Co., E. K., Kansas City, Mo.
 Campbell Heating Co., Des Moines, Iowa.
 Coal-O-Matic Co., Trucksville, Pa.
 Crane Co., Chicago, Ill.
 Dowagiac Steel Furnace Co., Dowagiac, Mich.
 Eddy Stoker Corp., Chicago, Ill.
 Electric Furnace-Man, Inc., Emmaus, Pa.
 Excelsior Stove & Mfg. Co., Quincy, Ill.
 Farquhar Furnace Co., Wilmington, Ohio.
 Floral City Heater Co., Monroe, Mich.
 Front Rank Furnace Co., Div. Liberty Foundry Co., St. Louis, Mo.
 Furblo Co., Hermansville, Mich.
 Gross-Aire Mfg. Co., St. Louis, Mo.
 Hall-Neal Furnace Co., Indianapolis, Ind.
 Hart & Crouse Corp., Oneida, N. Y.
 Henry Furnace Co., Medina, Ohio.
 Hershey Machine & Foundry Co., Manheim, Pa.
 Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill.
 Ingersoll Products Div., Borg-Warner Corp., Kalamazoo, Mich.
 International Heater Co., Utica, N. Y.
 Iron Fireman Mfg. Co., Cleveland, Ohio.
 Jackson & Church Co., Saginaw, Mich.
 Johnson Heater Corp., Chelsea, Mass.
 Keith Furnace Co., Des Moines, Iowa.
 Kleenair Furnace Co., Portland, Ore.
 Lennox Furnace Co., Marshalltown, Iowa.
 Majestic Co., Inc., Huntington, Ind.
 Mayflower Air Conditioners, Inc., St. Paul, Minn.
 McDonald Mfg. Co., A. Y., Dubuque, Ia.
 Meyer Furnace Co., Peoria, Ill.
 Montag Stove & Furnace Works, Portland, Ore.
 Mueller Climatrol, Milwaukee, Wis.
 National Heater Co., St. Paul, Minn.
 Norge Heat Div., Borg-Warner Corp., Kalamazoo, Mich.
 Northwest Foundry & Furnace Co., Portland, Ore.
 Olsen Mfg. Co., C. A., Elyria, Ohio.
 Peerless Furnace and Foundry Co., Indianapolis, Ind.
 Portland Stove Foundry Co., Portland, Maine.
 Premium Coal & Oil Co., Cincinnati, Ohio.
 Rosebraugh Co., W. W., Salem, Ore.
 Round Oak Co., Inc., of Ind., Dowagiac, Mich.
 Ruby Management Co., Pittsburgh, Pa.
 Rybolt Heater Co., Ashland, Ohio.
 St. Louis Furnace Mfg. Co., St. Louis, Mo.
 Sandberg Mfg. Co., Portland, Ore.
 Schill Mfg. Co., Crestline, Ohio.
 Souther Iron Co., E. E., St. Louis, Mo.
 Stewart-Warner Corp., U. S. Machine Div., Lebanon, Ind.
 Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
 Sure Comfort Furnace Co., Forest Park, Ill.
 Synchromatic Corp., Watertown, Wis.
 Thatcher Furnace Co., Garwood, N. J.
 Toridheet Div., Cleveland Steel Products Corp., Cleveland, Ohio.
 United States Radiator Corp., Detroit, Mich.
 Viking Mfg. Corp., Cleveland, Ohio.
 Waterman-Waterbury Co., Minneapolis, Minn.
 Wayne Home Equipment Co., Inc., Fort Wayne, Ind.
 Williamson Heater Co., Cincinnati, Ohio.
 Worsham Co., Inc., Long Beach, Calif.

FURNACES, FORCED WARM AIR, LOWBOY, GAS FIRED, CAST IRON

For Basement Installations

American Foundry & Furnace Co., Bloomington, Ill.
 American Furnace Co., St. Louis, Mo.
 Baum Heating, Inc., J. H., Youngstown, Ohio.

Beck Engineering Combustion Company, St. Louis, Mo.
 Bryant Heater Div., Affiliated Gas Equipment, Inc., Cleveland, Ohio.
 Crane Co., Chicago, Ill.
 Forest City Foundries Co., Niagara Furnace Div., Cleveland, Ohio.
 Green Colonial Furnace Co., Des Moines, Iowa.
 Hart Heat Div., Avery Farm Machinery Co., Peoria, Ill.
 Henry Furnace Co., Medina, Ohio.
 Herbster Products Co., Cleveland, O.
 Mueller Climatrol, Milwaukee, Wis.
 Olsen Mfg. Co., C. A., Elyria, Ohio.
 Pennsylvania Furnace & Iron Co., Warren, Pa.
 Richmond Radiator Co., Affil. Reynolds Metals Co., Metuchen, N. J.
 Rybolt Heater Co., Ashland, Ohio.
 Schwab Furnace Co., Milwaukee, Wis.
 Sheet Metal Mfg. Co., Youngstown, O.
 Souther Iron Co., E. E., St. Louis, Mo.
 Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
 Thatcher Furnace Co., Garwood, N. J.
 XXth Century Heating & Ventilating Co., Akron, Ohio.

FURNACES, FORCED WARM AIR, LOWBOY, GAS FIRED, STEEL

For Basement Installations

Airtemp Div., Chrysler Corp., Dayton, Ohio.
 Airwasher Corp., Eaton Rapids, Mich.
 Aladdin Heating Corp., San Leandro, Calif.
 Allan Engineering Co., Dallas, Texas.
 American Furnace Co., St. Louis, Mo.
 Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
 Armstrong Furnace Co., Columbus, Ohio.
 Auburn Burner Co., Auburn, Ind.
 Auburn Foundry, Inc., Stoker, Div., Auburn, Ind.
 Autogas Co., Bellwood, Ill.
 Automatic Firing Corp., St. Louis, Mo.
 Barber Gas Burner Co., Cleveland, O.
 Bard Mfg. Co., Bryan, Ohio.
 Baum Heating, Inc., J. H. Youngstown, Ohio.
 Beck Engineering Combustion Company, St. Louis, Mo.
 Berger Furnace Corp., Belle Vernon, Pa.
 Bonair Products, Inc., Philadelphia, Pa.
 Brandes Co., Madison, Wis.
 Bryant Heater Div., Affil. Gas Equipment, Inc., Cleveland, Ohio.
 Campbell Co., E. K., Kansas City, Mo.
 Campbell Heating Co., Des Moines, Iowa.
 Century Engineering Corp., Cedar Rapids, Iowa.
 Coleman Co., Inc., Wichita, Kans.
 Columbia Specialty Co., Inc., Chevy Chase, Md.
 Conco Engineering Works, Mendota, Ill.
 Delco Appliance Div. General Motors Corp., Rochester, N. Y.
 Delta Heating Corp., Trenton, N. J.
 Dornback Furnace & Foundry Co., Cleveland, Ohio.
 Dowagiac Steel Furnace Co., Dowagiac, Mich.
 Dualtron Co., Pittsburgh, Pa.
 Empire Stove Co., Belleville, Ill.
 Excelsior Stove & Mfg. Co., Quincy, Ill.
 Farquhar Furnace Co., Wilmington, Ohio.
 Firewel Co., Inc., Buffalo, N. Y.
 Floral City Heater Co., Monroe, Mich.
 Fluid Heat Div. Anchor Post Products, Inc., Baltimore, Md.
 Forest City Foundries Co., Niagara Furnace Div., Cleveland, Ohio.
 Fraser and Johnston Co., Div. Liberty Foundry Co., San Francisco, Calif.
 Front Rank Furnace Co., St. Louis, Mo.
 General Automatic Products Corp., Baltimore, Md.
 Gillen Co., J. L., Detroit, Mich.
 Glasby Mfg. Co., Inc., J. P., Belleville, N. J.
 Green Colonial Furnace Co., Des Moines, Iowa.
 Gross-Aire Mfg. Co., St. Louis, Mo.
 Hall-Neal Furnace Co., Indianapolis, Ind.
 Hart & Crouse Corp., Oneida, N. Y.
 Hart Heat Div., Avery Farm Machinery Co., Peoria, Ill.
 Heating Specialties Co., Baltimore, Md. (Stainless)
 Heil Co., Milwaukee, Wis.
 Henderson Furnace & Mfg. Corp., Sebastopol, Calif.
 Henry Furnace Co., Medina, Ohio.
 Hess Co., Chicago, Ill.
 Hunt Heater Corp., Nashville, Tenn.
 Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill.
 Independence Stove & Mfg. Co., Independence, Mo.
 Ingersoll Products Div., Borg-Warner Corp., Kalamazoo, Mich.
 International Heater Co., Utica, N. Y.

International Oil Burner Co., St. Louis, Mo.
 International Sales Co., San Francisco, Calif.
 Iron Fireman Mfg. Co., Cleveland, Ohio.
 Jackson & Church Co., Saginaw, Mich.
 Jet-Heat, Inc., Englewood, N. J.
 Jetronaire, Inc., Pittsburgh, Pa.
 Johnson Heater Corp., Chelsea, Mass.
 Kalamazoo Furnace & Appliance Mfg. Co., Kalamazoo, Mich.
 Kaustine Furnace & Tank Corp., Perry, N. Y.
 Keith Furnace Co., Des Moines, Iowa.
 Kleenair Furnace Co., Portland, Ore.
 Ko-Z-Aire Products, Inc., Red Oak, Iowa.
 Kresky Mfg. Co., Inc., Petaluma, Calif.
 Leeson Air Conditioning Corp., Detroit, Mich.
 Lennox Furnace Co., Marshalltown, Iowa.
 Lincoln Furnace Co., Inc., Hawthorne, N. J.
 Little Burner Co., Inc., H. C., San Rafael, Calif.
 Lundt, Inc., Ernest C., Little Falls, N. J.
 Majestic Co., Inc., Huntington, Ind.
 Mayflower Air Conditioners, Inc., St. Paul, Minn.
 McDonald Mfg. Co., A. Y., Dubuque, Ia.
 Metro Metal Mfg. Co., Holt, Mich.
 Metzger Machine & Engineering Co., Milwaukee, Wis.
 Meyer Furnace Co., Peoria, Ill.
 Moncrief Furnace Co., Atlanta, Ga.
 Morrison Steel Products, Inc., Buffalo, N. Y.
 Mueller Climatrol, Milwaukee, Wis.
 Mulkey Co., J. F., Detroit, Mich.
 National Heater Co., St. Paul, Minn.
 Norge Heat Div., Borg-Warner Corp., Kalamazoo, Mich.
 Norman Products Co., Inc., Columbus, Ohio.
 Norwalk Air Conditioning Corp., South Norwalk, Conn.
 Olsen Mfg. Co., C. A., Elyria, Ohio.
 Oran Co., Columbus, Ohio.
 Pacific Gas Heating Co., San Francisco, Calif.
 Patten Co., J. V., Sycamore, Ill.
 Payne Furnace Div. Affiliated Gas Equipment, Inc., Monrovia, Calif.
 Peerless Furnace and Foundry Co., Indianapolis, Ind.
 Pennsylvania Furnace & Iron Co., Warren, Pa.
 Perfection Stove Co., Cleveland, Ohio.
 Petro Div., Iron Fireman Mfg. Co., Cleveland, O.
 Premier Furnace Co., Dowagiac, Mich.
 Radiant-Aire Corp., Michigan City, Ind.
 Radiation Furnace Corp., Benton Harbor, Mich.
 Ralph Mfg. Co., Inc., Wadsworth, O.
 Rapid Heat Corp., Detroit, Mich.
 Rasch Mfg. Corp., Kansas City, Mo.
 Richmond Radiator Co., Affil. Reynolds Metals Co., Metuchen, N. J.
 Roberts-Gordon Appliance Corp., Buffalo, N. Y.
 Round Oak Co., Inc., Dowagiac, Mich.
 Royal Jet, Inc., Alhambra, Calif.
 Ruby Management Co., Pittsburgh, Pa.
 Rybolt Heater Co., Ashland, Ohio.
 Ryniker Steel Products Co., Billings, Mont.
 St. Louis Furnace Mfg. Co., St. Louis, Mo.
 Schill Mfg. Co., Crestline, Ohio.
 Sequoia Mfg. Co., San Carlos, Calif.
 Sheet Metal Mfg. Co., Youngstown, O.
 Smith Corp., A. O., Permaglas Div., Kankakee, Ill.
 Souther Iron Co., E. E., St. Louis, Mo.
 Steel City Furnace Co., Springdale, Pa.
 Steel Products Engineering Co., Combustioneer Div., Springfield, O.
 Stewart-Warner Corp., U. S. Machine Div., Lebanon, Ind.
 Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
 Superior Furnace & Mfg. Co., Plymouth, Mich.
 Sure Comfort Furnace Co., Forest Park, Ill.
 Surface Combustion Corp., Toledo, O.
 Sutton Corp., O. A., Wichita, Kans.
 Syncromatic Corp., Watertown, Wis.
 Temco, Inc., Nashville, Tenn.
 Thatcher Furnace Co., Garwood, N. J.
 Therm-O-Blast Div., O'Halloran Inds., Detroit, Mich.
 Thermo-Products, Inc., North Judson, Ind.
 Timkin Silent Automatic Div., Rockwell Spring and Axle Co., Jackson, Mich.
 Tjernlund Mfg. Co., St. Paul, Minn.
 Toridheat Div., Cleveland Steel Products Corp., Cleveland, Ohio.
 Turb-O-Tube Furnace, Inc., Buffalo, N. Y.
 United States Radiator Corp., Detroit, Mich.
 Utility Appliance Corp., Los Angeles, Calif.
 Viking Mfg. Corp., Cleveland, Ohio.
 Waterman-Waterbury Co., Minneapolis, Minn.
 Wayne Home Equipment Co., Fort Wayne, Ind.

Williams Div., Eureka-Williams Co., Div. of Henney Motor Co., Inc., Bloomington, Ill.
 Williamson Heater Co., Cincinnati, Ohio.
 York-Shipley, Inc., York, Pa.
 Zick Sheet Metal Works, Dearborn, Mich.
 Zink Co., John, Tulsa, Okla.

FURNACES, FORCED WARM AIR, LOWBOY, OIL FIRED, CAST IRON

For Basement Installations

American Foundry & Furnace Co., Bloomington, Ill.
 Baum Heating, Inc., J. H., Youngstown, Ohio.
 Hart Heat Div., Avery Farm Machinery Co., Peoria, Ill.
 Keith Furnace Co., Des Moines, Iowa
 Livingston, Inc., Marshall, Mich.
 Mueller Climatrol, Milwaukee, Wis.
 Portland Stove Foundry Co., Portland, Me.
 Ruby Management Co., Pittsburgh, Pa.
 Schwab Furnace Co., Milwaukee, Wis.
 Sheet Metal Mfg. Co., Youngstown, O.
 XXth Century Heating & Ventilating Co., Akron, Ohio.

FURNACES, FORCED WARM AIR, LOWBOY, OIL FIRED, STEEL

For Basement Installations

Air Conditioning Engineering Co., Cambridge, Mass.
 Airtemp Div., Chrysler Corp., Dayton, Ohio.
 Airwasher Corp., Eaton Rapids, Mich.
 American Furnace Co., St. Louis, Mo.
 American Ideal-Aire Corp., Mineola, N. Y.
 Anchor Div., Stratton & Terstege Co., Inc., New Albany, Ind.
 Arcweld Mfg. Co., Seattle, Wash.
 Armstrong Furnace Co., Columbus, Ohio.
 Auburn Burner Co., Auburn, Ind.
 Auburn Foundry, Inc., Stoker Div., Auburn, Ind.
 Automatic Firing Corp., St. Louis, Mo.
 Bard Mfg. Co., Bryan, Ohio.
 Baum Heating, Inc., J. H., Youngstown, Ohio.
 Beck Engineering Combustion Company, St. Louis, Mo.
 Berger Furnace Corp., Belle Vernon, Pa.
 Besser Metal Products Corp., Charlotte, N. C.
 Brandes Co., Madison, Wis.
 Bryant Heater Div., Affiliated Gas Equipment, Inc., Cleveland, Ohio.
 Campbell Co., E. K., Kansas City, Mo.
 Campbell Heating Co., Des Moines, Iowa.
 Cary Mfg. Co., Waupaca, Wis.
 Century Engineering Corp., Cedar Rapids, Iowa.
 Certified Furnace Corp., Trenton, N. J.
 Chicago Steel Furnace Co., Chicago, Ill.
 Coal-O-Matic Co., Trucksville, Pa.
 Coleman Co., Inc., Wichita, Kans.
 Columbia Specialty Co., Inc., Chevy Chase, Md.
 Conco Engineering Works, Mendota, Ill.
 Connecticut State Furnace Co., Bridgeport, Conn.
 Cox Mfg. Co., Ridgeville, Ind.
 Crane Co., Chicago, Ill.
 Delco Appliance Div., General Motors Corp., Rochester, N. Y.
 Delta Heating Corp., Trenton, N. J.
 DeSoto Oil Burner Corp., York, Pa.
 Domestic Mfg. Co., Seattle, Wash.
 Dowagiac Steel Furnace Co., Dowagiac, Mich.
 Dualtron Co., Pittsburgh, Pa. (Equipped with electrostatic filter)
 Ducane Heating Corp., Hawthorne, N. J.
 Duo-Therm Div., Motor Wheel Corp., Lansing, Mich.
 Electric Furnace-Man, Inc., Emmaus, Pa.
 Electrol Burner Mfg. Co., Inc., Rutherford, N. J.
 Engineering Industries Co., Ltd., Toronto, Ont., Canada.
 Enico Products, Detroit, Mich.
 Excelsior Stove & Mfg. Co., Quincy, Ill.
 Farquhar Furnace Co., Wilmington, O.
 Floral City Heater Co., Monroe, Mich.
 Fluid Heat Div. Anchor Post Products, Inc., Baltimore, Md.
 Forest City Foundries Co., Niagara Furnace Div., Cleveland, Ohio.
 Front Rank Furnace Co., Div. Liberty Foundry Co., St. Louis, Mo.
 Furblo Co., Hermanville, Mich.
 General Automatic Products Corp., Baltimore, Md.
 General Oil Heating Corp., West New York, N. J.
 Gilbert & Barker Mfg. Co., West Springfield, Mass.
 Gillen Co., J. L., Detroit, Mich.
 Glasby Mfg. Co., Inc., J. P., Belleville, N. J.
 Green Colonial Furnace Co., Des Moines, Iowa.
 Hall-Neal Furnace Co., Indianapolis, Ind.

Hart & Crouse Corp., Oneida, N. Y.
Hart Heat Div., Avery Farm Machinery Co., Peoria, Ill.
Harvey-Whipple, Inc., Springfield, Mass.
Heating Specialties Co., Baltimore, Md. (Stainless).
Heil Co., Milwaukee, Wis.
Henry Furnace Co., Medina, Ohio.
Herco Oil Burner Corp., Lancaster, Pa.
Hershey Machine & Foundry Co., Manheim, Pa.
Hess Co., Chicago, Ill.
Home Furnace Co., Holland, Mich.
Hotentot Co., Inc., Omaha, Nebr.
Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill.
Ingersoll Products Div., Borg-Warner Corp., Kalamazoo, Mich.
International Heater Co., Utica, N. Y.
International Oil Burner Co., St. Louis, Mo.
International Sales Co., San Francisco, Calif.
Iron Fireman Mfg. Co., Cleveland, Ohio.
Jackson & Church Co., Saginaw, Mich.
Jet-Heat, Inc., Englewood, N. J.
Jettroinaire, Inc., Pittsburgh, Pa.
Johnson Co., S. T. Oakland Calif. and Philadelphia, Pa.
Jungers Stove & Range Co., Grafton, Wis.
Kalamazoo Furnace & Appliance Mfg. Co., Kalamazoo, Mich.
Kaustine Furnace & Tank Corp., Perry, N. Y.
Keith Furnace Co., Des Moines, Iowa.
Kleensair Furnace Co., Portland Ore.
Kleer-Kleen Mfg. Co., Hayward, Calif.
Ko-Z-Aire Products, Inc., Red Oak, Iowa.
Kresky Mfg. Co., Inc., Petaluma, Calif.
Leeson Air Conditioning Corp., Detroit, Mich.
Lennox Furnace Co., Marshalltown, Iowa.
Lincoln Furnace Co., Inc., Hawthorne, N. J.
Little Burner Co., Inc., H. C., San Rafael, Calif.
Lundt, Inc., Ernest C., Little Falls, N. J.
Luty Furnace Mfg. Co., Detroit, Mich.
Majestic Co., Inc., Huntington, Ind.
Mavflower Air Conditioners, Inc., St. Paul, Minn.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
McKee Furnace Co., Minneapolis, Minn.
McPherson Furnace & Supply Co., Portland, Ore.
Metro Metal Mfg. Co., Holt, Mich.
Meyer Furnace Co., Peoria, Ill.
Montag Stove & Furnace Works, Portland, Ore.
Morrison Steel Products, Inc., Buffalo, N. Y.
Mortemp Div., Mechanical Products Co., Seattle, Wash.
Mueller Climatrol, Milwaukee, Wis.
Mulkey Co., J. F., Detroit, Mich.
National Heater Co., St. Paul, Minn.
Norge Heat Div., Borg-Warner Corp., Kalamazoo, Mich.
Northwest Foundry & Furnace Co., Portland, Ore.
Norwalk Air Conditioning Corp., South Norwalk, Conn.
Olsen Mfg. Co., C. A., Elyria, Ohio.
Oran Co., Columbus, O.
Pacific Gas Heating Co., San Francisco, Calif.
Paragon Oil Burner Corp., Brooklyn, N. Y.
Patten Co., J. V., Sycamore, Ill.
Peerless Furnace and Foundry Co., Indianapolis, Ind.
Penn Boiler & Burner Mfg. Corp., Lancaster, Pa.
Perfection Stove Co., Cleveland, Ohio.
Petro Div., Iron Fireman Mfg. Co., Cleveland, Ohio.
Prat-Daniel Corp., South Norwalk, Conn.
Premier Furnace Co., Dowagiac, Mich.
Premium Coal & Oil Co., Cincinnati, Ohio.
Queen Stove Works, Inc., Albert Lea, Minn.
Quick Furnace & Supply Co., Des Moines, Iowa.
Quiet Automatic Burner Corp., Newark, N. J.
Radiant-Aire Corp., Michigan City, Ind.
Radiant Utilities Corp., Brooklyn, N. Y.
Radiation Furnace Corp., Benton Harbor, Mich.
Ralph Mfg. Co., Inc., Wadsworth, O.
Ray Oil Burner Co., San Francisco, Calif.
Reif-Rexoil, Inc., Buffalo, N. Y.
Republic Products Co., Philadelphia, Pa.
Rheem Mfg. Co., Chicago, Ill.
Richmond Radiator Co., Affil. Reynolds Metals Co., Metuchen, N. J.
Robot Auto Heat Corp., Middletown, Conn.
Rosebraugh Co., W. W., Salem, Ore.
Roscoe Mfg. Co., Seattle, Wash.
Round Oak Co., Inc., Dowagiac, Mich.
Ruby Management Co., Pittsburgh, Pa.
Rybolt Heater Co., Ashland, Ohio.
St. Louis Furnace Mfg. Co., St. Louis, Mo.
Sandberg Mfg. Co., Portland, Ore.
Schill Mfg. Co., Crestline, Ohio.
Schwab Furnace Co., Milwaukee, Wis.
Silent Sioux Corp., Orange City, Iowa.

Smith Corp., A. O., Permaglas Div., Kankakee, Ill.
Souther Iron Co., E. E., St. Louis, Mo.
Standard Arcoil Corp., Newark, N. J.
Standard Heating Equipment Co., Waterloo, Iowa.
Steel City Furnace Co., Springdale, Pa.
Steel Products Engineering Co., Combustioneer Div., Springfield, Ohio.
Stewart-Warner Corp., U. S. Machine Div., Lebanon, Ind.
Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
Sundstrand Engineering Co., Rockford, Ill.
Superior Furnace & Mfg. Co., Plymouth, Mich.
Sure Comfort Furnace Co., Forest Park, Ill.
Surface Combustion Corp., Toledo, O.
Syncromatic Corp., Watertown, Wis.
Thatcher Furnace Co., Garwood, N. J.
Therm-O-Blast Div., O'Halloran Inds., Detroit, Mich.
Thermo-Products, Inc., North Judson, Ind.
Timken Silent Automatic Div., Rockwell Spring and Axle Co., Jackson, Mich.
Tjernlund Mfg. Co., St. Paul, Minn.
Toridheet Div., Cleveland Steel Products Corp., Cleveland, Ohio.
Tru-Heat Co., Trenton, N. J.
Turb-O-Tube Furnace, Inc., Buffalo, N. Y.
United Air Heaters, Inc., Seattle, Wash.
United States Radiator Corp., Detroit, Mich.
Viking Mfg. Corp., Cleveland, Ohio.
Waltham Oil Burner Co., E. Boston, Mass.
Waterman-Waterbury Co., Minneapolis, Minn.
Wayne Home Equipment Co., Inc., Fort Wayne, Ind.
Weatherall Engineers, Inc., Providence R. I.
Williams Div., Eureka-Williams Co., Div. of Henney Motor Co., Inc., Bloomington, Ill.
Williamson Heater Co., Cincinnati, Ohio.
York-Shipley, Inc., York, Pa.
Zick Sheet Metal Works, Dearborn, Mich.

FURNACES, FORCED WARM AIR, WALL, GAS FIRED

Hammel Radiator Engineering Co., Los Angeles, Calif.
Payne Furnace Div., Affiliated Gas Equipment, Inc., Monrovia, Calif.

FURNACES, FORCED WARM AIR, WALL, OIL FIRED

Certified Furnace Corp., Trenton, N. J.
Hammel Radiator Engineering Co., Los Angeles, Calif.
Quincy Stove Mfg. Co., Quincy, Ill.

FURNACES, FORCED WARM AIR, WITH DOMESTIC HOT WATER SUPPLY, GAS FIRED, STEEL

Aqua-Air Corp., Elmont, L. I., N. Y.
Metromatic Mfg. Co., Everett, Mass.
Robot-Auto Heat Corp., Middletown, Conn.

FURNACES, FORCED WARM AIR, WITH DOMESTIC HOT WATER SUPPLY, OIL FIRED, STEEL

Aqua-Air Corp., Elmont, L. I., N. Y.
Metromatic Mfg. Co., Everett, Mass.
Robot-Auto Heat Corp., Middletown, Conn.

FURNACES, FORCED WARM AIR, 400,000 BTUH AND UP CAPACITY (DIRECT FIRED, FOR LOCATION IN SPACE TO BE HEATED AND WITHOUT DUCT DISTRIBUTION)

See Heaters, Air

FURNACES, FORCED WARM AIR, 400,000 BTUH AND UP CAPACITY, COAL FIRED, CAST IRON

Exclusively for Duct Distribution of Air

American Foundry & Furnace Co., Bloomington, Ill.
Favorite Stove Co., Piqua, O.
MaGirl Foundry & Furnace Co., Bloomington, Ill.
McPherson Furnace & Supply Co., Portland, Ore.
Mueller Climatrol, Milwaukee, Wis.
Stewart-Warner Corp., U. S. Machine Div., Lebanon, Ind.

FURNACES, FORCED WARM AIR, 400,000 BTUH AND UP CAPACITY, COAL FIRED, STEEL

Exclusively for Duct Distribution of Air

Air Conditioning Engineering Co., Cambridge, Mass.
Armstrong Furnace Co., Columbus, O.
Beck Engineering Combustion Company, St. Louis, Mo.
Campbell Heating Co., Des Moines, Ia.
Floral City Heater Co., Monroe, Mich.
Jackson & Church Co., Saginaw, Mich.
Johnson Heater Corp., Chelsea, Mass.
Lee Corp., Wilmington, Del.
Lennox Furnace Co., Marshalltown, Ia.
Mammoth Furnace Co., St. Paul, Minn.
Meyer Furnace Co., Peoria, Ill.
Mueller Climatrol, Milwaukee, Wis.
National Heater Co., St. Paul, Minn.
Northwest Foundry & Furnace Co., Portland, Ore.
Peerless Furnace and Foundry Co., Indianapolis, Ind.
Round Oak Co., Inc., Dowagiac, Mich.
Sandberg Mfg. Co., Portland, Ore.
Syncromatic Corp., Watertown, Wis.
Waterman-Waterbury Co., Minneapolis, Minn.

FURNACES, FORCED WARM AIR, 400,000 BTUH AND UP CAPACITY, GAS FIRED, CAST IRON

Exclusively for Duct Distribution of Air

American Foundry & Furnace Co., Bloomington, Ill.
MaGirl Foundry & Furnace Co., Bloomington, Ill.
Mueller Climatrol, Milwaukee, Wis.
Stewart-Warner Corp., U. S. Machine Div., Lebanon, Ind.
Surface Combustion Corp., Toledo, O.

FURNACES, FORCED WARM AIR, 400,000 BTUH AND UP CAPACITY, GAS FIRED, STEEL

Exclusively for Duct Distribution of Air

Air Conditioning Engineering Co., Cambridge, Mass.
Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
Armstrong Furnace Co., Columbus, O.
Beck Engineering Combustion Company, St. Louis, Mo.
Bryant Heater Div., Affiliated Gas Equipment, Inc., Cleveland, O.
Campbell Co., E. K., Kansas City, Mo.
Campbell Heating Co., Des Moines, Ia.
Chicago Steel Furnace Co., Chicago, Ill.
Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill.
International Sales Co., San Francisco, Calif.
Jackson & Church Co., Saginaw, Mich.
Johnson Heater Corp., Chelsea, Mass.
Lee Corp., Wilmington, Del.
Lennox Furnace Co., Marshalltown, Ia.
Majestic Co., Inc., Huntington, Ind.
Mammoth Furnace Co., St. Paul, Minn.
McPherson Furnace & Supply Co., Portland, Ore.
Meyer Furnace Co., Peoria, Ill.
Mueller Climatrol, Milwaukee, Wis.
National Heater Co., St. Paul, Minn.
Olson & Co., Arthur A., Canfield, O.
Peerless Furnace & Foundry Co., Indianapolis, Ind.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Prat-Daniel Corp., South Norwalk, Conn.
Republic Products Co., Philadelphia, Pa.
Round Oak Co., Dowagiac, Mich.
St. Louis Furnace Mfg. Co., St. Louis, Mo.
Syncromatic Corp., Watertown, Wis.
Tjernlund Mfg. Co., St. Paul, Minn.
Waterman-Waterbury Co., Minneapolis, Minn.

FURNACES, FORCED WARM AIR, 400,000 BTUH AND UP CAPACITY, OIL FIRED, CAST IRON

Exclusively for Duct Distribution of Air

American Foundry & Furnace Co., Bloomington, Ill.
Campbell Co., E. K., Kansas City, Mo.
International Heater Co., Utica, N. Y.
Keith Furnace Co., Des Moines, Ia.
MaGirl Foundry & Furnace Co., Bloomington, Ill.
Mueller Climatrol, Milwaukee, Wis.

FURNACES, FORCED WARM AIR, 400,000 BTUH AND UP CAPACITY, OIL FIRED, STEEL

Exclusively for Duct Distribution of Air

Air Conditioning Engineering Co., Cambridge, Mass.
Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
Armstrong Furnace Co., Columbus, O.
Bard Mfg. Co., Bryan, O.
Beck Engineering Combustion Company, St. Louis, Mo.
Besser Metal Products Corp., Charlotte, N. C.
Campbell Co., E. K., Kansas City, Mo.
Campbell Heating Co., Des Moines, Ia.
Chicago Steel Furnace Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill.
International Sales Co., San Francisco, Calif.
Jackson & Church Co., Saginaw, Mich.
Johnson Heater Corp., Chelsea, Mass.
Keith Furnace Co., Des Moines, Ia.
Lee Corp., Wilmington, Del.
Lennox Furnace Co., Marshalltown, Ia.
Majestic Co., Inc., Huntington, Ind.
Mammoth Furnace Co., St. Paul, Minn.
McPherson Furnace & Supply Co., Portland, Ore.
Meyer Furnace Co., Peoria, Ill.
Montag Stove & Furnace Works, Portland, Ore.
Mueller Climatrol, Milwaukee, Wis.
National Heater Co., St. Paul, Minn.
Northwest Foundry & Furnace Co., Portland, Ore.
Norwalk Air Conditioning Corp., South Norwalk, Conn.
Olson & Co., Arthur A., Canfield, O.
Peerless Furnace and Foundry Co., Indianapolis, Ind.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Prat-Daniel Corp., South Norwalk, Conn.
Quiet Automatic Burner Corp., Newark, N. J.
Rosebraugh Co., W. W., Salem, Ore.
Round Oak Co., Dowagiac, Mich.
St. Louis Furnace Mfg. Co., St. Louis, Mo.
Sandberg Mfg. Co., Portland, Ore.
Stewart-Warner Corp., U. S. Machine Div., Lebanon, Ind.
Syncromatic Corp., Watertown, Wis.
Tjernlund Mfg. Co., St. Paul, Minn.
Waterman-Waterbury Co., Minneapolis, Minn.
Weatherall Engineers, Inc., Providence, R. I.

FURNACES, PORTABLE, FOR TEMPORARY HEAT

Air Conditioning Engineering Co., Cambridge, Mass.
Auburn Burner Co., Auburn, Ind.
Bica Co., Girard, O.
Certified Furnace Corp., Trenton, N. J.
Delta Heating Corp., Trenton, N. J.
Fageol Heat Machine Co., Detroit, Mich.
Gilmore & Co., Jackson G., Columbus, O.
Johnson Gas Appliance Co., Cedar Rapids, Ia.
Lennox Furnace Co., Marshalltown, Ia.
Mortemp Div., Mechanical Products Co., Seattle, Wash.
National Heater Co., St. Paul, Minn.
Prat-Daniel Corp., South Norwalk, Conn.
Quiet Automatic Burner Corp., Newark, N. J.
Tjernlund Mfg. Co., St. Paul, Minn.
Waltham Oil Burner Co., Inc., Boston, Mass.

FURNACES, SOLDERING

Aeroil Products Co., Inc., South Hackensack, N. J.
Bernz Co., Otto, Rochester, N. Y.
Clayton & Lambert Mfg. Co., Louisville, Ky.
Fieser Co., F. J., New York, N. Y.
Fusion Engineering, Cleveland, Ohio.
Goss Gas Inc., Glenshaw, Pa.
Hones, Inc., Charles A., Baldwin, N. Y. (Gas).
Inland Steel Products Co., Milwaukee, Wis.
Insto-Gas Corp., Detroit, Mich. (Gas).
Johnson Gas Appliance Co., Cedar Rapids, Iowa.
Mutual Liquid Gas & Equipment Co., Inglewood, Calif.
New Delphos Mfg. Co., Delphos, O. (Charcoal)
Polis Mfg. Co., J. D., Chicago, Ill.
Ransome Co., Emeryville, Calif.
Reiner & Campbell Co., Inc., Newark, N. J.
Reliable Gas Products Co., Cedar Rapids, Iowa.
Sanders, J. A., Fulton, N. Y.
Selas Corp. of America, Philadelphia, Pa.
Turner Brass Works, Sycamore, Ill.
Unique Mfg. Co., Inc., Chicago, Ill. (Gasoline, Kerosene).
Vulcan Electric Co., Div. Consolidated Electric Lamp Co., Inc., Danvers, Mass. (Electric)
Weldit, Inc., Detroit, Mich.
Westinghouse Electric Corp., Pittsburgh, Pa.

FURNACES, WARM AIR, GRAVITY, COAL FIRED, CAST IRON

Agricola Furnace Co., Inc., Gadsden, Ala.
American Foundry & Furnace Co., Bloomington, Ill.
American Furnace Co., St. Louis, Mo.
Bovee Furnace Works, Waterloo, Iowa.
Crane Co., Chicago, Ill.
Excelsior Stove & Mfg. Co., Quincy, Ill.
Favorite Stove Co., Piqua, Ohio.
Forest City Foundries Co., Niagara Furnace Div., Cleveland, Ohio.
Green Colonial Furnace Co., Des Moines, Iowa.
Henry Furnace Co., Medina, Ohio.
Home Furnace Co., Holland, Mich.
Katelman Foundry & Mfg. Co., Council Bluffs, Iowa.
Keith Furnace Co., Des Moines, Iowa.
MaGirl Foundry & Furnace Co., Bloomington, Ill.
Maple City Furnace Co., Monmouth, Ill.
Montag Stove & Furnace Works, Portland, Ore.
Mueller Climatrol, Milwaukee, Wis.
Olsen Mfg. Co., C. A., Elyria, Ohio.
Portland Stove Foundry Co., Portland, Maine.
Premier Furnace Co., Dowagiac, Mich.
Quick Furnace & Supply Co., Des Moines, Iowa.
Schill Mfg. Co., Crestline, Ohio.
Schwab Furnace Co., Milwaukee, Wis.
Souther Iron Co., E. E., St. Louis, Mo.
Spear Stove & Heater Co., James, Philadelphia, Pa.
Steel Products Engineering Co., Combustioneer Div., Springfield, Ohio.
Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
Thatcher Furnace Co., Garwood, N. J.
Union Mfg. Co., Inc., Boyertown, Pa.
United States Radiator Corp., Detroit, Mich.
Wise Furnace Co., Newark, Ohio.
XXth Century Heating & Ventilating Co., Akron, Ohio.

FURNACES, WARM AIR, GRAVITY, COAL FIRED, STEEL

American Furnace Co., St. Louis, Mo.
Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
Arcweld Mfg. Co., Inc., Seattle, Wash.
Armstrong Furnace Co., Columbus, Ohio.
Bard Mfg. Co., Bryan, Ohio.
Berger Furnace Corp., Belle Vernon, Pa.
Bovee Furnace Works, Waterloo, Iowa.
Campbell Heating Co., Des Moines, Iowa.
Crane Co., Chicago, Ill.
Daniels Mfg. Co., Inc., Sam, Hardwick, Vt.
Dowagiac Steel Furnace Co., Dowagiac, Mich.
Excelsior Stove & Mfg. Co., Quincy, Ill.
Farquhar Furnace Co., Wilmington, Ohio.
Floral City Heater Co., Monroe, Mich.
Front Rank Furnace Co., Div. Liberty Foundry Co., St. Louis, Mo.
Furblo Co., Hermansville, Mich.
Gross-Aire Mfg. Co., St. Louis, Mo.
Hall-Neal Furnace Co., Indianapolis, Ind.
Hart & Crouse Corp., Oneida, N. Y.
Henry Furnace Co., Medina, Ohio.
Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill.
Ingersoll Products Div., Borg-Warner Corp., Kalamazoo, Mich.
International Heater Co., Utica, N. Y.
Jackson & Church Co., Saginaw, Mich.
Kalamazoo Furnace & Appliance Mfg. Co., Kalamazoo, Mich.
Keith Furnace Co., Des Moines, Iowa.
Lennox Furnace Co., Marshalltown, Iowa.
Majestic Co., Inc., Huntington, Ind.
Mayflower Air Conditioners, Inc., St. Paul, Minn.
Meyer Furnace Co., Peoria, Ill.
Montag Stove & Furnace Works, Portland, Ore.
Mueller Climatrol, Milwaukee, Wis.
National Heater Co., St. Paul, Minn.
Norge Heat Div., Borg-Warner Corp., Kalamazoo, Mich.
Northwest Foundry & Furnace Co., Portland, Ore.
Nugent Furnaces, Thos., New York, N. Y.
Olsen Mfg. Co., C. A., Elyria, Ohio.
Peerless Furnace and Foundry Co., Indianapolis, Ind.
Portland Stove Foundry Co., Portland, Maine.
Premier Furnace Co., Dowagiac, Mich.
Quick Furnace & Supply Co., Des Moines, Iowa.
Rosebraugh Co., W. W., Salem, Ore.
Round Oak Co., Inc., of Ind., Dowagiac, Mich.
Ruby Management Co., Pittsburgh, Pa.
Rybolt Heater Co., Ashland, Ohio.

St. Louis Furnace Mfg. Co., St. Louis, Mo.
Sandberg Mfg. Co., Portland, Ore.
Schill Mfg. Co., Crestline, Ohio.
Schwab Furnace Co., Milwaukee, Wis.
Souther Iron Co., E. E., St. Louis, Mo.
Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
Sure Comfort Furnace Co., Forest Park, Ill.
Syncromatic Corp., Watertown, Wis.
Thatcher Furnace Co., Garwood, N. J.
Toridheat Div., Cleveland Steel Products Corp., Cleveland, Ohio.
Tri-State Heating Supply, Inc., Fort Wayne, Ind.
United States Radiator Corp., Detroit, Mich.
Waterman-Waterbury Co., Minneapolis, Minn.
Wayne Home Equipment Co., Inc., Fort Wayne, Ind.
Williamson Heater Co., Cincinnati, Ohio.
Worsham Co., Inc., Long Beach, Calif.

FURNACES, WARM AIR, GRAVITY, ELECTRIC

Gray & Dudley Co., Nashville, Tenn. (Floor)
Heating Assurance, Inc., Spokane, Wash.
Meier Electric & Machine Co., Inc., Indianapolis, Ind.

FURNACES, WARM AIR, GRAVITY, FLOOR, GAS

Advance Furnace Co., Wichita, Kans.
Agricola Furnace Co., Inc., Gadsden, Ala.
Andrews Heater Co., Los Angeles, Calif.
Autogas Co., Bellwood, Ill.
Beck Engineering Combustion Kompany, St. Louis, Mo.
Benner-Nawman, Inc., Oakland, Calif.
Bryant Heater Div. Affiliated Gas Equipment, Inc., Cleveland, Ohio.
Central States Mfg. Co., Inc., Arkansas City, Kans.
Cole Hot Blast Mfg. Co., Chicago, Ill.
Coleman Co., Inc., Wichita, Kans.
Deluxe Furnace & Wall Heater Co., Los Angeles, Calif.
Fraser & Johnston Co., San Francisco, Calif.
Gray & Dudley Co., Nashville, Tenn.
Heating Equipment Mfg. Co., San Francisco, Calif.
Holly Mfg. Co., Pasadena, Calif.
Hotstream Heater Co., Cleveland, Ohio.
Hunt Heater Corp., Nashville, Tenn.
International Sales Co., San Francisco, Calif.
Iron Fireman Mfg. Co., Cleveland, O.
Jackson & Church Co., Saginaw, Mich.
King Metal Co., Oklahoma City, Okla.
King Stove and Range Co., Sheffield, Ala.
Kleer-Kleen Mfg. Co., Hayward, Calif.
Kresky Mfg. Co., Inc., Petaluma, Calif.
Lawson Mfg. Co., New Kensington, Pa.
Lennox Furnace Co., Marshalltown, Iowa.
Little Burner Co., Inc., H. C., San Rafael, Calif.
Magic Chef, Inc., St. Louis, Mo.
Mahl Mfg. Co., Huntington Park, Calif.
Martin Stamping & Stove Co., Huntsville, Ala.
Meyer Furnace Co., Peoria, Ill.
Moncrief Furnace & Mfg. Co., Inc., Dallas, Texas.
Mt. Vernon Furnace & Mfg. Co., Mt. Vernon, Ill.
National Appliances, Inc., New Kensington, Pa.
Oran Co., Columbus, Ohio.
Payne Furnace Div. Affiliated Gas Equipment, Inc., Monrovia, Calif.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Perfection Stove Co., Cleveland, Ohio.
Queen Stove Works, Inc., Albert Lea, Minn.
Ralph Mfg. Co., Inc., Wadsworth, O.
Rheem Mfg. Co., Chicago, Ill.
Samuel Stamping & Enameling Co., Chattanooga, Tenn.
Southwest Mfg. Co., Aurora, Mo.
Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
Sunshine Mantle Co., Chanute, Kans.
Surface Combustion Corp., Toledo, Ohio.
Temco, Inc., Nashville, Tenn.
Thermo-Products, Inc., North Judson, Ind.
Utility Appliance Corp., Los Angeles, Calif.
Viking Mfg. Corp., Cleveland, Ohio.
Ward Heater Co., Los Angeles, Calif.
Wayne Home Equipment Co., Inc., Fort Wayne, Ind.
Zink Co., John, Tulsa, Okla.

FURNACES, WARM AIR, GRAVITY, FLOOR, OIL

Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
Auburn Burner Co., Auburn, Ind.
Benner-Nawman, Inc., Oakland, Calif.
Beyer Metal Products Co., Rosamond, Calif.

Certified Furnace Corp., Trenton, N. J.
 Coleman Co. Inc., Wichita, Kans.
 Delta Heating Corp., Trenton, N.J.
 Domestic Mfg. Co., Seattle, Wash.
 Gillen Co., J. L., Detroit, Mich.
 Jackson & Church Co., Saginaw, Mich.
 Kleer-Kleen Mfg. Co., Hayward, Calif.
 Kresky Mfg. Co., Inc., Petaluma, Calif.
 Little Burner Co., Inc., H. C., San Rafael, Calif.
 Mulkey Co., J. F., Detroit, Mich.
 Northwest Metal Products, Inc., Seattle, Wash.
 Oran Co., Columbus, Ohio.
 Queen Stove Works, Inc., Albert Lea, Minn.
 Quiet Automatic Burner Corp., Newark, N. J.
 Ralph Mfg. Co., Inc., Wadsworth, O.
 Stewart-Warner Corp., U. S. Machine Div., Lebanon, Ind.
 Therm Oil Burner Co., Seattle, Wash.
 Thermo-Products, Inc., North Judson, Ind.
 United Air Heaters, Inc., Seattle, Wash.
 Wayne Home Equipment Co., Inc., Fort Wayne, Ind.

FURNACES, WARM AIR, GRAVITY, GAS FIRED, CAST IRON

Favorite Stove Co., Piqua, Ohio.
 Forest City Foundries Co., Niagara Furnace Div., Cleveland, Ohio.
 Henry Furnace Co., Medina, Ohio.
 Hotentot Co., Inc., Omaha, Nebr.
 Mueller Climatrol, Milwaukee, Wis.
 Olsen Mfg. Co., C. A., Elyria, Ohio.
 Payne Beverly Mfg. Co., Beverly Hills, Calif.
 Sheet Metal Mfg. Co., Youngstown, O.
 Souther Iron Co., E. E., St. Louis, Mo.
 Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
 XXth Century Heating & Ventilating Co., Akron, Ohio.

FURNACES, WARM AIR, GRAVITY, GAS FIRED, STEEL

Advance Furnace Co., Wichita, Kans.
 Airwasher Corp., Eaton Rapids, Mich.
 Aladdin Heating Corp., San Leandro, Calif.
 American Furnace Co., St. Louis, Mo.
 Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
 Armstrong Furnace Co., Columbus, Ohio.
 Auburn Burner Co., Auburn, Ind.
 Barber Gas Burner Co., Cleveland, O.
 Bard Mfg. Co., Bryan, O.
 Beck Engineering Combustion Company, St. Louis, Mo.
 Berger Furnace Corp., Belle Vernon, Pa.
 Bryant Heater Div. Affiliated Gas Equipment, Inc., Cleveland, Ohio.
 Campbell Heating Co., Des Moines, Iowa.
 Century Engineering Corp., Cedar Rapids, Iowa.
 Columbia Burner Co., Toledo, Ohio.
 Conco Engineering Works, Mendota, Ill.
 Crane Co., Chicago, Ill.
 Dornback Furnace & Foundry Co., Cleveland, Ohio.
 Dowagiac Steel Furnace Co., Dowagiac, Mich.
 Excelsior Stove Mfg. Co., Quincy, Ill.
 Farquhar Furnace Co., Wilmington, Ohio.
 Firewel Co., Inc., Buffalo, N.Y.
 Floral City Heater Co., Monroe, Mich.
 Forest City Foundries Co., Niagara Furnace Div., Cleveland, Ohio.
 Fraser and Johnston Co., San Francisco, Calif.
 Front Rank Furnace Co., Div. Liberty Foundry Co., St. Louis, Mo.
 General Electric Co., Air Conditioning Div., Bloomfield, N. J.
 Green Colonial Furnace Co., Des Moines, Iowa.
 Gross-Aire Mfg. Co., St. Louis, Mo.
 Hall-Neal Furnace Co., Indianapolis, Ind.
 Hart Heat Div., Avery Farm Machinery Co., Peoria, Ill.
 Heating Specialties Co., Baltimore, Md. (Stainless)
 Heat-Well Mfg. Co., Oakland, Calif.
 Henry Furnace Co., Medina, Ohio.
 Holly Mfg. Co., Pasadena, Calif.
 Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill.
 Independence Stove & Mfg. Co., Independence, Mo.
 Ingersoll Products Div., Borg-Warner Corp., Kalamazoo, Mich.
 International Heater Co., Utica, N. Y.
 International Oil Burner Co., St. Louis, Mo.
 Jackson & Church Co., Saginaw, Mich.
 Kalamazoo Furnace & Appliance Mfg. Co., Kalamazoo, Mich.
 Kleenair Furnace Co., Portland, Ore.
 Ko-Z-Aire Products, Inc., Red Oak, Iowa.
 Kresky Mfg. Co., Inc., Petaluma, Calif.

Lawson Mfg. Co., New Kensington, Pa.
 Leeson Air Cond. Corp., Detroit, Mich.
 Lennox Furnace Co., Marshalltown, Iowa.
 Little Burner Co., Inc., H. C., San Rafael, Calif.
 Lundt, Inc., Ernest C., Little Falls, N. J.
 Majestic Co., Inc., Huntington, Ind.
 Mayflower Air Conditioners, Inc., St. Paul, Minn.
 McDonald Mfg. Co., A. Y., Dubuque, Ia.
 Metzger Machine & Engineering Co., Milwaukee, Wis.
 Meyer Furnace Co., Peoria, Ill.
 Morrison Steel Products, Inc., Buffalo, N. Y.
 Mueller Climatrol, Milwaukee, Wis.
 Mulkey Co., J. F., Detroit, Mich.
 Norge Heat Div., Borg-Warner Corp., Kalamazoo, Mich.
 Norman Products Co., Inc., Columbus, Ohio.
 Nugent Furnaces, Thomas, New York, N. Y.
 Olsen Mfg. Co., C. A., Elyria, Ohio.
 Oran Co., Columbus, Ohio.
 Pacific Gas Heating Co., San Francisco, Calif.
 Patten Co., J. V., Sycamore, Ill.
 Peerless Furnace and Foundry Co., Indianapolis, Ind.
 Pennsylvania Furnace & Iron Co., Warren, Pa.
 Perfection Stove Co., Cleveland, Ohio.
 Radiant-Aire Corp., Michigan City, Ind.
 Ralph Mfg. Co., Inc., Wadsworth, O.
 Rheem Mfg. Co., Chicago, Ill.
 Richmond Radiator Co., Affil. Reynolds Metals Co., Metuchen, N. J.
 Round Oak Co., Inc., Dowagiac, Mich.
 Ruby Management Co., Pittsburgh, Pa.
 Rybolt Heater Co., Ashland, Ohio.
 Ryniker Steel Products Co., Billings, Mont.
 St. Louis Furnace Mfg. Co., St. Louis, Mo.
 Schill Mfg. Co., Crestline, Ohio.
 Schwab Furnace Co., Milwaukee, Wis.
 Sheet Metal Mfg. Co., Youngstown, O.
 Souther Iron Co., E. E., St. Louis, Mo.
 Steel Products Engineering Co., Combustioneer Div., Springfield, O.
 Stewart Co., W. H., Oklahoma City, Okla.
 Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
 Superior Furnace & Mfg. Co., Plymouth, Mich.
 Sure Comfort Furnace Co., Forest Park, Ill.
 Surface Combustion Corp., Toledo, Ohio.
 Temco, Inc., Nashville, Tenn.
 Thatcher Furnace Co., Garwood, N. J.
 Therm-O-Blast Div., O'Halloran Inds., Detroit, Mich.
 Toridheet Div., Cleveland Steel Products Corp., Cleveland, Ohio.
 United States Radiator Corp., Detroit, Mich.
 Viking Mfg. Corp., Cleveland, O.
 Waterman-Waterbury Co., Minneapolis, Minn.
 Wayne Home Equipment Co., Inc., Fort Wayne, Ind.
 Williams Div., Eureka-Williams Co., Div. of Henney Motor Co., Inc., Bloomington, Ill.
 Williamson Heater Co., Cincinnati, Ohio.
 Worsham Co., Inc., Long Beach, Calif.
 Zick Sheet Metal Works, Dearborn, Mich.

FURNACES, WARM AIR, GRAVITY, OIL FIRED, CAST IRON

Delta Heating Corp., Trenton, N. J.
 Forest City Foundries Co., Niagara Furnace Div., Cleveland, O.
 Keith Furnace Co., Des Moines, Iowa.
 Mueller Climatrol, Milwaukee, Wis.
 Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
 XXth Century Heating & Ventilating Co., Akron, Ohio.

FURNACES, WARM AIR, GRAVITY, OIL FIRED, STEEL

Airwasher Corp., Eaton Rapids, Mich.
 American Furnace Co., St. Louis, Mo.
 Anchor Div. Stratton & Terstegge Co., Inc., New Albany, Ind.
 Arcweld Mfg. Co., Inc., Seattle, Wash.
 Armstrong Furnace Co., Columbus, Ohio.
 Auburn Burner Co., Auburn, Ind.
 Barber Gas Burner Co., Cleveland, O.
 Bard Mfg. Co., Bryan, Ohio.
 Beck Engineering Combustion Company, St. Louis, Mo.
 Berger Furnace Corp., Belle Vernon, Pa.
 Beyer Metal Products Co., Rosamond, Calif.
 Bryant Heater Div., Affil. Gas Equipment, Inc., Cleveland, Ohio.
 Campbell Heating Co., Des Moines, Iowa.
 Cary Mfg. Co., Waupaca, Wis.
 Century Engineering Corp., Cedar Rapids, Iowa.
 Conco Engineering Works, Mendota, Ill.

Connecticut State Furnace Co., Bridgeport, Conn.
 Crane Co., Chicago, Ill.
 Daniels Mfg. Co., Inc., Sam, Hardwick, Vt.
 Delco Appliance Div. General Motors Corp., Rochester, N. Y.
 Delta Heating Corp., Trenton, N.J.
 Duo-Therm Div., Motor Wheel Corp., Lansing, Mich.
 Excelsior Stove & Mfg. Co., Quincy, Ill.
 Farquhar Furnace Co., Wilmington, Ohio.
 Floral City Heater Co., Monroe, Mich.
 Furblo Co., Hermansville, Mich.
 Gillen Co., J. L., Detroit, Mich.
 Green Colonial Furnace Co., Des Moines, Iowa.
 Hall-Neal Furnace Co., Indianapolis, Ind.
 Hart & Crouse Corp., Oneida, N. Y.
 Hart Heat Div., Avery Farm Machinery Co., Peoria, Ill.
 Heating Specialties Co., Baltimore, Md. (Stainless)
 Henry Furnace Co., Medina, Ohio.
 Home Furnace Co., Holland, Mich.
 Hotentot Co., Inc., Omaha, Nebr.
 Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill.
 Ingersoll Products Div., Borg-Warner Corp., Kalamazoo, Mich.
 International Heater Co., Utica, N.Y.
 International Oil Burner Co., St. Louis, Mo.
 Jungers Stove & Range Co., Grafton, Wis.
 Kalamazoo Furnace & Appliance Mfg. Co., Kalamazoo, Mich.
 Kaustine Furnace & Tank Corp., Perry, N. Y.
 Keith Furnace Co., Des Moines, Iowa.
 Kleenair Furnace Co., Portland, Ore.
 Ko-Z-Aire Products, Inc., Red Oak, Iowa.
 Kresky Mfg. Co., Inc., Petaluma, Calif.
 Laco Oil Burner Co., Inc., Griswold, Ia.
 Leeson Air Cond. Corp., Detroit, Mich.
 Lennox Furnace Co., Marshalltown, Iowa.
 Little Burner Co., Inc., H. C., San Rafael, Calif.
 Lundt, Inc., Ernest C., Little Falls, N. J.
 Maestic Co., Inc., Huntington, Ind.
 McDonald Mfg. Co., A. Y., Dubuque, Ia.
 McKee Furnace Co., Minneapolis, Minn.
 Metro Metal Mfg. Co., Holt, Mich.
 Meyer Furnace Co., Peoria, Ill.
 Morrison Steel Products, Inc., Buffalo, N. Y.
 Mueller Climatrol, Milwaukee, Wis.
 Mulkey Co., J. F., Detroit, Mich.
 Norge Heat Div., Borg-Warner Corp., Kalamazoo, Mich.
 Northwest Foundry & Furnace Co., Portland, Ore.
 Nugent Furnaces, Thomas, New York, N. Y.
 Olsen Mfg. Co., C. A., Elyria, Ohio.
 Oran Co., Columbus, Ohio.
 Patten Co., J. V., Sycamore, Ill.
 Peerless Furnace and Foundry Co., Indianapolis, Ind.
 Perfection Stove Co., Cleveland, Ohio.
 Portland Stove Foundry Co., Portland, Maine.
 Premier Furnace Co., Dowagiac, Mich.
 Queen Stove Works, Inc., Albert Lea, Minn.
 Quincy Stove Mfg. Co., Quincy, Ill.
 Radiant-Aire Corp., Michigan City, Ind.
 Ralph Mfg. Co., Inc., Wadsworth, O.
 Rosebraugh Co., W. W., Salem, Ore.
 Round Oak Co., Inc., Dowagiac, Mich.
 Rybolt Heater Co., Ashland, Ohio.
 St. Louis Furnace Mfg. Co., St. Louis, Mo.
 Sandberg Mfg. Co., Portland, Ore.
 Schill Mfg. Co., Crestline, O.
 Schwab Furnace Co., Milwaukee, Wis.
 Souther Iron Co., E. E., St. Louis, Mo.
 Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
 Superior Furnace & Mfg. Co., Plymouth, Mich.
 Sure Comfort Furnace Co., Forest Park, Ill.
 Syncromatic Corp., Watertown, Wis.
 Thatcher Furnace Co., Garwood, N. J.
 Therm-O-Blast Div., O'Halloran Inds., Detroit, Mich.
 United States Radiator Corp., Detroit, Mich.
 Viking Mfg. Corp., Cleveland, Ohio.
 Waterman-Waterbury Co., Minneapolis, Minn.
 Wayne Home Equipment Co., Inc., Fort Wayne, Ind.
 Williamson Heater Co., Cincinnati, Ohio.
 Zick Sheet Metal Works, Dearborn, Mich.

FURNACES, WARM AIR, GRAVITY, PIPELESS, CAST IRON

Agricola Furnace Co., Inc., Gadsden, Ala.
 American Furnace Co., St. Louis, Mo.
 Excelsior Stove & Mfg. Co., Quincy, Ill.
 Gross-Aire Mfg. Co., St. Louis, Mo.
 Henry Furnace Co., Medina, Ohio.

Keith Furnace Co., Des Moines, Iowa.
 Montag Stove & Furnace Works, Portland, Ore.
 Mueller Climatrol, Milwaukee, Wis.
 Olsen Mfg. Co., The C. A., Elyria, Ohio.
 Portland Stove Foundry Co., Portland, Maine.
 Schwab Furnace Co., Milwaukee, Wis.
 Souther Iron Co., E. E., St. Louis, Mo.
 Spear Stove & Heater Co., James, Philadelphia, Pa.
 United States Radiator Corp., Detroit, Mich.
 XXth Century Heating & Ventilating Co., Akron, Ohio.

FURNACES, WARM AIR, GRAVITY, PIPELESS, STEEL

Armstrong Furnace Co., Columbus, Ohio.
 Berger Furnace Corp., Belle Vernon, Pa.
 Daniels Mfg. Co., Inc., Sam, Hardwick, Vt.
 Delta Heating Corp., Trenton, N. J.
 Excelsior Stove & Mfg. Co., Quincy, Ill.
 Gross-Aire Mfg. Co., St. Louis, Mo.
 Hart & Crouse Corp., Oneida, N. Y.
 Hotentot Co., Inc., Omaha, Nebr.
 Ingersoll Products Div., Borg-Warner Corp., Kalamazoo, Mich.
 International Heater Co., Utica, N. Y.
 Jackson & Church Co., Saginaw, Mich.
 Keith Furnace Co., Des Moines, Iowa.
 Lawson Mfg. Co., New Kensington, Pa.
 Lennox Furnace Co., Marshalltown, Iowa.
 Montag Stove & Furnace Works, Portland, Ore.
 Mueller Climatrol, Milwaukee, Wis.
 Nugent Furnaces, Thos., New York, N. Y.
 Pennsylvania Furnace & Iron Co., Warren, Pa.
 Rosebraugh Co., W. W., Salem, Ore.
 Schill Mfg. Co., Crestline, Ohio.
 Schwab Furnace Co., Milwaukee, Wis.
 Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
 Thatcher Furnace Co., Garwood, N. J.
 United States Radiator Corp., Detroit, Mich.
 Waterman-Waterbury Co., Minneapolis, Minn.
 Williamson Heater Co., Cincinnati, O.

FURNACES, WARM AIR, GRAVITY, WALL

Advance Furnace Co., Wichita, Kans.
 Andrews Heater Co., Los Angeles, Calif. (Gas)
 Beyer Metal Products Co., Rosamond, Calif. (Oil)
 Bryant Heater Div., Affiliated Gas Equipment, Inc., Cleveland, Ohio. (Gas)
 Central States Mfg. Co., Inc., Arkansas City, Kan. (Gas)
 Chattanooga Royal Co., Chattanooga, Tenn. (Gas)
 Cirklair Products Div. Folsom Co., Inc., Dallas, Texas. (Gas)
 Coleman Co., Inc., Wichita, Kans.
 Commonwealth Co., Alhambra, Calif.
 Day & Night Div., Affiliated Gas Equipment, Inc., Monrovia, Calif. (Gas)
 Delta Heating Corp., Trenton, N.J. (Oil)
 Deluxe Furnace & Wall Heater Co., Los Angeles, Calif. (Gas)
 Electromode Corp., Rochester, N. Y., (Electric)
 Empire Stove Co., Belleville, Ill. (Gas)
 General Gas Light Co., Kalamazoo, Mich. (Gas)
 General Water Heater Corp., Burbank, Calif. (Gas)
 Hammel Radiator Engineering Co., Los Angeles, Calif. (Gas)
 Heating Equipment Mfg. Co., San Francisco, Calif. (Gas)
 Hirsh Mfg. Co., Garland, Texas (Gas)
 Holly Mfg. Co., Pasadena, Calif. (Gas)
 Hunt Heater Corp., Nashville, Tenn. (Gas)
 International Sales Co., San Francisco, Calif. (Gas)
 Kresky Mfg. Co., Inc., Petaluma, Calif. (Oil)
 Lawson Mfg. Co., New Kensington, Pa. (Gas)
 Little Burner Co., Inc., H. C., San Rafael, Calif. (Oil)
 Magic Chef, Inc., St. Louis, Mo.
 Mahl Mfg. Co., Huntington Park, Calif. (Gas)
 Morrison Steel Products, Inc., Buffalo, N. Y. (Gas and Oil)
 Norge Heat Div., Borg-Warner Corp., Kalamazoo, Mich. (Gas)
 Norman Products Co., Inc., Columbus, O.
 Norris-Thermador Corp., Los Angeles, Calif. (Electric)
 Northwest Metal Products, Inc., Seattle, Wash.
 Ohio Foundry & Mfg. Co., Steubenville, Ohio. (Gas)
 O'Keefe & Merritt Co., Los Angeles, Calif. (Gas)
 Palm Mfg. Co., San Mateo, Calif. (Gas)
 Payne Furnace Div. Affiliated Gas Equipment, Inc., Monrovia, Calif. (Gas)
 Pioneer Furnace Co., Los Angeles, Calif. (Gas)
 Quincy Stove Mfg. Co., Quincy, Ill.
 Rheem Mfg. Co., Chicago, Ill. (Gas)
 Royal Jet, Inc., Alhambra, Calif. (Gas)
 Samuel Stamping & Enameling Co., Chattanooga, Tenn. (Gas)
 Silent Sioux Corp., Orange City, Iowa. (Gas & oil)

San Carlos Mfg. Co., San Carlos, Calif. (Gas and LP)
 Southwest Mfg. Co., Aurora, Mo. (Gas)
 Stewart-Warner Corp., U. S. Machine Div., Lebanon, Ind.
 (Gas and Oil)
 Temco, Inc., Nashville, Tenn.
 Utility Appliance Corp., Los Angeles, Calif. (Gas)
 Ward Heater Co., Los Angeles, Calif.
 Williams Radiator Co., Glendale, Calif. (Gas)
 Zink Co., John, Tulsa, Okla. (Nat., L. P. & Mfg. Gas)

FURNACES, WARM AIR, GRAVITY, WOOD BURNING, CAST IRON

Excelsior Stove & Mfg. Co., Quincy, Ill.
 Moncrief Furnace & Mfg. Co., Dallas, Texas.
 Montag Stove & Furnace Works, Portland, Ore.
 Portland Stove Foundry Co., Portland, Maine.
 Schwab Furnace Co., Milwaukee, Wis.

FURNACES, WARM AIR, GRAVITY, WOOD BURNING, STEEL

Arcweld Mfg. Co., Inc., Seattle, Wash.
 Bovee Furnace Works, Waterloo, Iowa.
 Campbell Co., E. K., Kansas City, Mo.
 Campbell Heating Co., Des Moines, Iowa.
 Daniels Mfg. Co., Inc., Sam, Hardwick, Vt.
 Excelsior Stove & Mfg. Co., Quincy, Ill.
 Furblo Co., Hermansville, Mich.
 Gross-Aire Mfg. Co., St. Louis, Mo.
 Jackson & Church Co., Saginaw, Mich.
 Kalamazoo Furnace & Appliance Mfg. Co., Kalamazoo, Mich.
 Moncrief Furnace & Mfg. Co., Dallas, Texas.
 Montag Stove & Furnace Works, Portland, Ore.
 Northwest Foundry & Furnace Co., Portland, Ore.
 Nugent Furnaces, Thomas, New York, N. Y.
 Rosebraugh Co., W. W., Salem, Ore.
 Sandberg Mfg. Co., Portland, Ore. (Sawdust)
 Synromatic Corp., Watertown, Wis.
 Williamson Heater Co., Cincinnati, O.
 Worsham Co., Inc., Long Beach, Calif.

GAGES, DRAFT, INDICATING, PORTABLE

Bacharach Industrial Instrument Co., Pittsburgh, Pa.
 Bristol Co., Waterbury, Conn.
 Defender Instrument & Regulator Co., St. Louis, Mo.
 Detroit Air Conditioning Service Co., Nashville, Mich.
 Dwyer Mfg. Co., F. W., Chicago, Ill.
 Ellison Draft Gage Co., Chicago, Ill.
 Hays Corp., Michigan City, Ind.
 Hill & Co., E. Vernon, Lake Geneva, Wis.
 Meriam Instrument Co., Cleveland, Ohio.
 Moeller Instrument Co., Richmond Hill, N. Y.
 Perfex Corp., Milwaukee, Wis.
 Precision Thermometer & Instrument Co., Philadelphia, Pa.
 Preferred Utilities Mfg. Corp., New York, N. Y.
 Uehling Instrument Co., Paterson, N. J.

GAGES, INDICATING, FILTER RESISTANCE

Bacharach Industrial Instrument Co., Pittsburgh, Pa.
 Rex Metal-Craft, Inc., Indianapolis, Ind.

GAGES, TANK, FUEL OIL

Applied Mechanics Co., Boston, Mass.
 Barclay, Inc., Robt., Chicago, Ill.
 Bearlee Products Co., Green Bay, Wis.
 Boston Machine Works Co., Lynn, Mass.
 Hasko Utilities Co., New York, N. Y.
 Jessup Signal Gauge Co., Excelsior, Minn.
 Krueger Sentry Gauge Co., Green Bay, Wis.
 Liquiddepth Indicators, Inc., Long Island City, N. Y.
 Liquidometer Corp., Long Island City, N. Y.
 Mel-Gauge Co., New Haven, Conn.
 Meriam Instrument Co., Cleveland, O.
 Morse-Smith-Morse Co., The, Watertown, Mass.
 Oil Equipment Mfg. Co., New Haven, Conn.
 Rochester Mfg. Co., Inc., Rochester, N.Y.
 Scully Signal Co., Melrose, Mass.
 Uehling Instrument Co., Paterson, N. J.

GALVANIZED SHEETS

See Sheets, Metal, Steel, Galvanized

GAS BURNER CONTROLS

See Controls; Control Systems

GAS BURNERS

See Burners, Conversion, Gas

GATES, BLAST

Berger Bros. Co., Philadelphia, Pa.
 Buffalo Forge Co., Buffalo, N. Y.
 Champion Blower & Forge Co., Lancaster, Pa.
 Clarage Fan Co., Kalamazoo, Mich.
 Day Co., Minneapolis, Minn.
 Eclipse Fuel Engineering Co., Rockford, Ill.
 Goethel Sheet Metal Works, Inc., Alfred, Milwaukee, Wis.
 Kirk & Blum Mfg. Co., Cincinnati, Ohio.
 Maysteel Products, Inc., Milwaukee, Wis.
 Newcomb-Detroit Co., Detroit, Mich.
 Puhl & Hepper Mfg. Co., Inc., St. Louis, Mo.
 R-S Products Corp., Philadelphia, Pa.
 Rees Blow Pipe Mfg. Co., Inc., Berkeley, Calif.
 Skinner Heating & Ventilating Co., St. Louis, Mo.
 Spencer Turbine Co., Hartford, Conn.
 Western Blower Co., Seattle, Wash.
 Winkler & Sons, Inc., A. E., Milwaukee, Wis.

GEARING, SKYLIGHT

See Lifts, Skylight

GERMICIDAL APPARATUS

See Sterilizers, Air

GLASS, INSULATED WINDOW PANELS

Libbey-Owens Ford Glass Co., Toledo, O.

GLASS, WIRE, FOR SKYLIGHTS

Atcheson Glass Co., T. J., Buffalo, N. Y.
 Blue Ridge Glass Corp., Kingsport, Tenn.
 Klauer Mfg. Co., Dubuque, Ia.
 Pennsylvania Wire Glass Co., Philadelphia, Pa.
 Pittsburgh Plate Glass Co., Pittsburgh, Pa.
 Robertson Co., H. H., Pittsburgh, Pa.

GRAVITY FURNACES

See Furnaces, Warm Air, Gravity

GRAVITY REGISTERS

See Registers, Heating, Ventilating and Air Conditioning

GREASE FILTERS

See Filters, Grease

GRILLES, HEATING, VENTILATING AND AIR CONDITIONING

Also See Faces and Registers

A & A Register Co., Cleveland, Ohio.
 A-J Mfg. Co., Kansas City, Mo.
 Air Control Products, Inc., Coopersville, Mich.
 Air-Factors, Inc., Monrovia, Calif.
 American Warming & Ventilating Co., Toledo, Ohio.
 America Welding & Mfg. Co., Building Products Div., Warren, O. (Door)
 Auer Register Co., Cleveland, Ohio.
 Barber-Colman Co., Rockford, Ill.
 Beckley Perforating Co., Garwood, N. J.
 Berger Furnace Corp., Belle Vernon, Pa.
 Controlair Mfg. Co., Los Angeles, Calif.
 Diamond Mfg. Co., Wyoming, Pa.
 Erdle Perforating Co., Rochester, N. Y.
 General Register Corp., Cedar Grove, N. J.
 Greenberg's Sons, M., San Francisco, Calif.
 Harrington & King Perforating Co., Chicago, Ill.
 Harrison Sheet Steel Co., Chicago, Ill.
 Hart & Cooley Mfg. Co., Holland, Mich.
 Hastings Air Conditioning Co., Inc., Hastings, Nebr.
 Hastings Air Control, Inc., Omaha, Nebr.
 Hendrick Mfg. Co., Carbondale, Pa.
 Henry Furnace Co., Medina, O.
 Independent Register Co., Cleveland, Ohio.
 Johnston & Chapman Co., Chicago, Ill.
 Juniper Elbow Co., Inc., Middle Village, L. I., N. Y.
 Krueger Air Conditioning Co., Tucson, Ariz.
 Lima Register Co., Lima, Ohio.
 Louvra Corp., Union, N.J.
 Manhattan Perforated Metal Co., Inc., Long Island City, N. Y.
 Metal Carrier Corp., Grand Rapids, Mich.
 Midco Register Corp., St. Paul, Minn.
 Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Mundt & Sons, Charles, Jersey City, N. J.

National Grille & Register Co., Cleveland, O.
 Patco Mfg. Co., Philadelphia, Pa.
 Radiant-Aire Corp., Michigan City, Ind.
 Register & Grille Mfg. Co., Inc., Brooklyn, N. Y.
 Rock Island Register Co., Rock Island, Ill.
 Smith Co., J. B., Philadelphia, Pa.
 Stewart Mfg. Co., Cedar Grove, N. J.
 Temco, Inc., Nashville, Tenn.
 Titus, Inc., Waterloo, Iowa.
 Titus Mfg. Corp., Waterloo, Iowa.
 Tuttle & Bailey, Inc., New Britain, Conn.
 United States Radiator Corp., Detroit, Mich.
 United States Register Co., Battle Creek, Mich.
 Viking Mfg. Corp., Cleveland, O.
 Waterloo Register Co., Inc., Waterloo, Ia.
 Wilde Register & Grille Co., Detroit, Mich.

GRINDERS, BUFFERS, POLISHERS AND SANDERS

See Buffers, Grinders, Polishers and Sanders

GROOVING MACHINES

See Machines, Grooving

GUARDS, SNOW

Barnard Co., Geo. A., Worcester, Mass.
 Berger Bros. Co., Philadelphia, Pa.
 Cartier & Sons Co., M. N., Providence, R. I.
 Chase Brass & Copper Co., Inc., Waterbury, Conn.
 Cromley's, Lewisburg, Pa.
 Danzer Metal Works Co., Hagerstown, Md.
 Downs-Smith Brass & Copper Co., New York, N. Y.
 Folsom Snow Guard Co., Holliston, Mass.
 Hussey & Co., C. G., Pittsburgh, Pa.
 Levow, David, New York, N. Y.
 Maysteel Products, Inc., Milwaukee, Wis.
 Obdyke, Inc., Philadelphia, Pa.
 Royal-Apex Mfg. Co., Inc., Brooklyn, N. Y.

GUNS, RIVET

Chicago Pneumatic Tool Co., New York, N. Y.
 Huck Mfg. Co., Detroit, Mich.
 Remington Arms Co., Inc., Bridgeport, Conn.
 Townsend Co., Cherry Rivet Div., Santa Ana, Calif.
 Velocity-Power Tool Co., Pittsburgh, Pa.

GUNS, SOOT

Miller Products Co., Lansing, Mich.
 S. O. S. Products Co., Inc., Brooklyn, N. Y.

GUNS, SPRAY, METAL

Schori Process, Div. Ferro-Co Corp., Long Island City, N. Y.
 Wall Colmonoy Corp., Detroit, Mich.

GUNS, SPRAY, PAINT

Binks Mfg. Co., Chicago, Ill.
 Black Mfg. Co., Harrison, N. J.
 Champion Implement Corp., New York, N. Y.
 DeVilbiss Co., Toledo, Ohio.
 Eclipse Air Brush Co., Newark, N. J.
 Electric Sprayit Div., Thomas Industries Inc., Sheboygan, Wis.
 Electro Dustless Painting, Inc., Elmwood, Conn.
 Plummer Spray Equipment Co., Napoleon, Ohio.
 Portable Electric Tools, Inc., Chicago, Ill.
 Spray Engineering Co., Somerville, Mass.

GUTTER ACCESSORIES

Hangers, Strainers, Mitters, Ends, Thimbles, Guards, etc.
 Ajax Furnace Fitting Co., Div. Cincinnati Sheet Metal & Roofing Co., Cincinnati, Ohio.
 Alabama Metal Lath Co., Birmingham, Ala.
 American Metal Products, Los Angeles, Calif.
 Atchison Specialty Mfg. Co., Atchison, Kans.
 Barnes Metal Products Co., Chicago, Ill.
 Berger Bros. Co., Philadelphia, Pa.
 Berger Mfg. Div. of Republic Steel Corp., Canton, Ohio.
 Braden Mfg. Co., Inc., Terre Haute, Ind.
 Ceco Steel Products Corp., Chicago, Ill.
 Char-Gale Mfg. Co., Anoka, Minn.
 Chase Brass & Copper Co., Inc., Waterbury, Conn.
 Cincinnati Elbow Co., Cincinnati, O.
 Downs-Smith Brass & Copper Co., New York, N. Y.
 Enderle Inc., Ltd., Frank X., Los Angeles, Calif.
 Famous Furnace Co., Cleveland, Ohio. (Strap hangers, end caps).
 Galvan Mfg. Co., New Albany, Ind.

Gerhardt Co., Inc., George T., Sausalito, Calif.
 Grand Rapids Wire Products Co., Grand Rapids, Mich.
 Gray Metal Products, Inc., Rochester, N. Y.
 Harrison Sheet Steel Co., Chicago, Ill.
 Hussey & Co., C. G., Pittsburgh, Pa. (Copper).
 Inland Steel Products Co., Milwaukee, Wis.
 J & J Sheet Metal Co., Van Dyke, Mich.
 Klauer Mfg. Co., Dubuque, Iowa.
 LaCrosse Steel Roofing & Corrugating Co., LaCrosse, Wis.
 Lamb & Ritchie Co., Cambridge, Mass.
 Levow, David, New York, N. Y.
 Lockhart Mfg. Corp., Detroit, Mich.
 Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
 Melaway Corp., Brandon, Wis.
 Moncrief Lenoir Mfg. Co., Houston, Tex.
 New Delphos Mfg. Co., Delphos, Ohio.
 Newport Steel Corp., Newport, Ky.
 Northwest Metal Products, Inc., Seattle, Wash.
 Obdyke, Inc., B. P., Philadelphia, Pa.
 Ohio Wire Products Co., Dover, Ohio. (Hangers).
 Penn Supply & Metal Corp., Philadelphia, Pa.
 Quaker State Metals Co., Lancaster, Pa.
 Ralph Mfg. Co., Inc., Wadsworth, Ohio.
 Reeves Steel & Mfg. Co., Dover, Ohio.
 Republic Steel Corp., Cleveland, O.
 Reynolds Metals Co., Louisville, Ky. (Aluminum).
 Riggin Metal Products, Inc., Kankakee, Ill.
 Roofing & Supply Co., Chattanooga, Tenn.
 Royal-Apex Mfg. Co., Inc., Brooklyn, N. Y.
 St. Paul Corrugating Co., St. Paul, Minn.
 Schoedinger, F. O., Columbus, Ohio.
 Sheet Metal Mfg. Co., Inc., Brooklyn, N. Y.
 Sioux Steel Co., Sioux Falls, S. D.
 Snap-On Mfg. Co., Chicago, Ill. (Hangers).
 Souther Iron Co., E. E., St. Louis, Mo.
 Standard Furnace Supply Co., Ltd., Omaha, Nebr.
 Steele Mfg. Co., Ashland, Ky. (Gutter guards)
 Thor Metal Products Co., Inc., Syracuse, N. Y.
 Tiffin Art Metal Co., Tiffin, Ohio. (Hangers, miters, ends, thimbles)
 Tiffin Eaves Trough Clamp Co., Tiffin, Ohio. (Clamp).
 Wade Mfg. Co., Div. of Woodruff & Edwards, Inc., Elgin, Ill. (Roof Drains).
 Wallace Co., William, Metalbestos Div., Belmont, Calif.
 Wheeling Corrugating Co., Wheeling, W. Va.

GUTTER FORMERS

See Machines, Gutter Forming

GUTTERS

Ajax Furnace Fittings Co., Div. Cincinnati Sheet Metal & Roofing Co., Cincinnati, Ohio.
 Alabama Metal Lath Co., Birmingham, Ala. (Steel & copper)
 American Brass Co., Waterbury, Conn. (Copper)
 Barnes Metal Products Co., Chicago, Ill.
 Bayonne Steel Products Co., Newark, N. J.
 Berger Bros. Co., Philadelphia, Pa.
 Berger Mfg. Div. of Republic Steel Corp., Canton, Ohio.
 Braden Mfg. Co., Inc., Terre Haute, Ind.
 Ceco Steel Products Corp., Chicago, Ill. (Galvanized steel)
 Char-Gale Mfg. Co., Anoka, Minn.
 Chase Brass & Copper Co., Inc., Waterbury, Conn. (Copper)
 Downs-Smith Brass & Copper Co., Inc., New York, N. Y. (Copper)
 Enderle Inc., Ltd., Frank X., Los Angeles, Calif. (Galvanized & copper)
 Harrison Sheet Steel Co., Chicago, Ill. (Alum.)
 Hussey & Co., C. G., Pittsburgh, Pa. (Copper)
 Inland Steel Products Co., Milwaukee, Wis. (Galvanized & copper)
 Klauer Mfg. Co., Dubuque, Iowa.
 La Crosse Steel Roofing & Corrugating Co., La Crosse, Wis. (Galvanized steel)
 Lamb & Ritchie Co., Cambridge, Mass. (Galvanized & copper)
 Lyon, Conklin & Co., Inc., Baltimore, Md.
 Matthiessen & Hegeler Zinc Co., LaSalle, Ill. (Zinc)
 Miller & Doing, Brooklyn, N. Y.
 Moncrief Lenoir Mfg. Co., Houston, Tex.
 New Delphos Mfg. Co., Delphos, Ohio. (Galv. steel)
 Newport Steel Corp., Newport, Ky. (Galvanized steel)
 Northwest Metal Products, Inc., Seattle, Wash. (Galv. & copper)
 Obdyke, Inc., B. P., Philadelphia, Pa. (Copper, galv. & stainless steel)
 Overly Mfg. Co., Greensburg, Pa. (Copper & aluminum)
 Penn Supply & Metal Corp., Philadelphia, Pa. (Galvanized, copper & aluminum)

Perkinson, William J., Chicago, Ill. (Copper & galvanized)
Pittsburgh Plate Glass Co., Pittsburgh, Pa.
Quaker State Metals Co., Lancaster, Pa. (Aluminum and galvanized)

Reeves Steel & Mfg. Co., Dover, Ohio. (Galvanized steel)
Republic Steel Corp., Cleveland, O. (Stainless steel)
Reynolds Metals Co., Louisville, Ky. (Aluminum)
Riggin Metal Products, Kankakee, Ill.
Royal-Apex Mfg. Co., Inc., Brooklyn, N. Y. (Copper, galvanized, aluminum)

Ryniker Steel Products Co., Billings, Mont.
St. Paul Corrugating Co., St. Paul, Minn. (Galvanized steel)
Schechter Bros. Co., Philadelphia, Pa. (Galvanized & copper)
Schoedinger, F. O., Columbus, Ohio. (Galvanized, stainless steel & copper)

Sheet Metal Mfg. Co., Inc., Brooklyn, N. Y. (Aluminum, copper, galvanized & zinc)

Sheet Metal Products Co., Peoria, Ill.
Sioux Steel Co., Sioux Falls, S. Dak. (Galv. & copper)
Southbridge Roofing Co., Inc., Southbridge, Mass. (Galv. & copper)

Souther Iron Co., E. E., St. Louis, Mo. (Galv.)
Standard Furnace Supply Co., Omaha, Neb. (Galv.)

Superior Safety Furnace Pipe Co., Detroit, Mich.
Thor Metal Products Co., Inc., Syracuse, N. Y. (Galv. & copper)
Tiffin Art Metal Co., Tiffin, Ohio. (Aluminum, stainless steel, copper & galv.)

Van Noorden Co., E., Boston, Mass.
Wheeling Corrugating Co., Wheeling, W. Va. (Galvanized steel)

Wallace Co., William, Metalbestos Div., Belmont, Calif. (Galvanized & copper)

York Corrugating Co., York, Pa. (Galvanized & copper)

HAMMERS, POWER

Black & Decker Mfg. Co., Towson, Md. (Electric)
Borm Mfg. Co., Elgin, Ill. (Pneumatic)
Burgess Thomas Co., Bloomfield, N. J. (Pneumatic)
Chicago Pneumatic Tool Co., New York, N. Y.
Davrus Corp., Joliet, Ill. (Electric)
Gibson Industries, Muskegon, Mich. (Electric)
Keller Tool Co., Grand Haven, Mich. (Pneumatic)
Merchandising and Mfg. Associates, Inc., Lancaster, Pa. (Pneumatic)

Millers Falls Co., Greenfield, Mass. (Electric)
Milwaukee Electric Tool Corp., Milwaukee, Wis. (Electric)
Nobel & Stanton, Inc., Bedford, Ohio. (Electric)
Phillips Drill Co., Michigan City, Ind. (Electric)

Polis Mfg. Co., J. D., Chicago, Ill. (Electric)
Powder Power Tool Corp., Portland, Ore. (Powder charged)
Rotor Tool Co., Cleveland, Ohio. (Pneumatic)
Skil Corporation, Chicago, Ill. (Electric & pneumatic)

Stanley Electric Tool Div., Stanley Works, New Britain, Conn. (Electric)

Superior Pneumatic & Mfg., Inc., Cleveland, Ohio. (Pneumatic)
Syntron Co., Homer City, Pa. (Electric)

Thor Power Tool Co., Aurora, Ill. (Electric & pneumatic)
Van Products Co., Erie, Pa. (Pneumatic-foot controlled)

Whiting Corp., Harvey, Ill. (Electric)
Wodack Electric Tool Corp., Chicago, Ill. (Electric)

HAND SHEARS

See Tools, Sheet Metal Workers

HANGERS AND SUPPORTS, DUCT

See Fastenings, Sheet Metal

HARDWARE, CABINET AND CASING

Handles, name plates, locks, etc.

American Cabinet Hardware Corp., Rockford, Ill. (Pulls, knobs, hinges, catches, etc.)

American Insulator Corp., New Freedom, Pa.
Corbin Div., P. & F., American Hardware Corp., New Britain, Conn. (Handles, catches, locks, hinges)

Etched Products Co., Long Island City, N. Y. (Name Plates)
Fisher Brass Foundry, Los Angeles, Calif. (Handles)

Greenberg's Sons, M., San Francisco, Calif. (Name plates, letters, hinges, bolts, latches)

Hartwell Co., Los Angeles, Calif.

Moss Industries, Inc., Brooklyn, N. Y.

National Lock Co., Rockford, Ill. (Hinges)

North Shore Nameplate Inc., Bayside, L. I., N. Y.

Premier Metal Etching Co., Long Island City, N. Y. (Name plates)

Soss Mfg. Co., Detroit, Mich. (Invisible hinges)

HARDWARE, DUCT FITTING

Duro-Dyne Corp., New Hyde Park, L. I., N. Y.

Hart & Cooley Mfg. Co., Holland, Mich.

Hartwell Co., Los Angeles, Calif.

HEAT PUMPS

See Units, Air Conditioning, Central Plant, Summer-Winter

HEAT RECOVERERS

See Recoverers, Heat

HEATERS, AIR, DIRECT FIRED, COAL

Campbell Co., E. K., Kansas City, Mo.

Campbell Heating Co., Des Moines, Ia.

Jackson & Church Co., Saginaw, Mich.

Johnson Heater Corp., Chelsea, Mass.

Lee Corporation, Wilmington, Del.

MaGirl Foundry & Furnace Co., Bloomington, Ill.

National Heater Co., St. Paul, Minn.

Olson & Co., Arthur A., Canfield, O.

Rosebraugh Co., W. W., Salem, Ore.

HEATERS, AIR, DIRECT FIRED, COMBINATION GAS AND OIL

Air Conditioning Engineering Co., Cambridge, Mass.

Airtherm Mfg. Co., St. Louis, Mo.

Campbell Co., E. K., Kansas City, Mo.

Dravo Corp., Machinery Div., Pittsburgh, Pa.

Drying Systems, Inc., Chicago, Ill.

Jackson & Church Co., Saginaw, Mich.

Lee Corp., Wilmington, Del.

MaGirl Foundry & Furnace Co., Bloomington, Ill.

Olson & Co., Arthur A., Canfield, O.

Prat-Daniel Corp., South Norwalk, Conn.

Ross Engineering Corp., J. O., New York, N. Y.

HEATERS, AIR, DIRECT FIRED, GAS, CENTRIFUGAL FAN TYPE

For Furnaces for Central Plant Installation EXCLUSIVELY for Duct Distribution of the Air, See the Listing Under Furnaces

Air Conditioning Engineering Co., Cambridge, Mass.

Airtherm Mfg. Co., St. Louis, Mo.

American Foundry & Furnace Co., Bloomington, Ill.

American Furnace Co., St. Louis, Mo.

Auburn Burner Co., Auburn, Ind.

Automatic Gas Equipment Co., Pittsburgh, Pa.

Auto-Therm Mfg. Co., Detroit, Mich.

Campbell Co., E. K., Kansas City, Mo.

Campbell Heating Co., Des Moines, Ia.

Chicago Steel Furnace Co., Chicago, Ill.

Dravo Corp., Pittsburgh, Pa.

Drying Systems, Inc., Chicago, Ill.

General Gas Light Co., Kalamazoo, Mich.

Hastings Air Conditioning Co., Inc., Hastings, Neb.

Hayes Furnace Mfg. & Supply Co., Los Angeles, Calif.

Independence Stove & Mfg. Co., Independence, Mo.

International Sales Co., San Francisco, Calif.

Jackson & Church Co., Saginaw, Mich.

Johnson Heater Corp., Chelsea, Mass.

Kilbury Mfg. Co., Inc., Lawndale, Calif.

MaGirl Foundry & Furnace Co., Bloomington, Ill.

Nat Corp., Kansas City, Mo.

National Heater Co., St. Paul, Minn.

Newcomb-Detroit Co., Detroit, Mich.

Norge Heat Div., Borg-Warner Corp., Detroit, Mich.

Norman Products Co., Inc., Columbus, O.

Olson & Co., Arthur A., Canfield, O.

OverHead Heaters, Inc., Detroit, Mich.

Payne Furnace Div., Affiliated Gas Equipment Inc., Monrovia, Calif.

Prat-Daniel Corp., East Port Chester, Conn.

Rexnor Mfg. Co., Mercer, Pa.

Rockwell Co., W. S., Fairfield, Conn.

Surface Combustion Corp., Toledo, O.

United States Air Conditioning Corp., Minneapolis, Minn.

Utility Appliance Corp., Los Angeles, Calif.

Vapor Heating Corp., Chicago, Ill.

Zink Co., John, Tulsa, Okla.

HEATERS, AIR, DIRECT FIRED, OIL, CENTRIFUGAL FAN TYPE

Auto-Therm Mfg. Co., Detroit, Mich.
Vapor Heating Corp., Chicago, Ill.

HEATERS, AIR, DIRECT FIRED, OIL, FLOOR TYPE

Air Conditioning Engineering Co., Cambridge, Mass.
Airtherm Mfg. Co., St. Louis, Mo.
American Foundry & Furnace Co., Bloomington, Ill.
Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
Campbell Co., E. K., Kansas City, Mo.
Campbell Heating Co., Des Moines, Ia.
Chicago Steel Furnace Co., Chicago, Ill.
Dravo Corp., Machinery Div., Pittsburgh, Pa.
Drying Systems, Inc., Chicago, Ill.
Gilbert & Barker Mfg. Co., West Springfield, Mass.
Jackson & Church Co., Saginaw, Mich.
Johnson Heater Corp., Chelsea, Mass.
MaGirl Foundry & Furnace Co., Bloomington, Ill.
National Heater Co., St. Paul, Minn.
Olson & Co., Arthur A., Canfield, O.
Prat-Daniel Corp., East Port Chester, Conn.
Ross Engineering Corp., J. O., New York, N. Y.
Williams Div., Eureka Williams Corp., Bloomington, Ill.

HEATERS, AIR, DIRECT FIRED, OIL, PORTABLE, FOR INDUSTRIAL SPACE HEATING

Air Conditioning Engineering Co., Cambridge, Mass.
Auburn Burner Co., Auburn, Ind.
Bica Co., Girard, O. (50,000-85,000 Btu)
Cauhorn Distributing Co., Detroit, Mich. (190,000 Btu)
Chicago Steel Furnace Co., Chicago, Ill.
Delta Heating Corp., Trenton, N. J.
Dravo Corp., Pittsburgh, Pa.
Fageol Heat Machine Co., Detroit, Mich.
Mortemp Div., Mechanical Products Co., Seattle, Wash.
National Heater Co., St. Paul, Minn.
Olson & Co., Arthur A., Canfield, O.
Prat-Daniel Corp., East Port Chester, Conn. (100,000 Btu up to 1,000,000 Btu)
Quiet Automatic Oil Burner Corp., Newark, N. J.

HEATERS, AIR, DIRECT FIRED, OIL, SUSPENDED TYPE

Air Conditioning Engineering Co., Cambridge, Mass.
Airtherm Mfg. Co., St. Louis, Mo.
Auburn Burner Co., Auburn, Ind.
American Furnace Co., St. Louis, Mo.
Beck Engineering Combustion Kompany, St. Louis, Mo.
Cox Mfg. Co., Ridgeville, Ind.
Campbell Co., E. K., Kansas City, Mo.
Chicago Steel Furnace Co., Chicago, Ill.
Delta Heating Corp., Trenton, N. J.
Dravo Corp., Machinery Div., Pittsburgh, Pa.
Fluid Heat Div., Anchor Post Products, Inc., Baltimore, Md.
Gilbert & Barker Mfg. Co., West Springfield, Mass.
Harvey-Whipple, Inc., Springfield, Mass.
Jackson & Church Co., Saginaw, Mich.
Lee Corp., Wilmington, Del.
National Heater Co., St. Paul, Minn.
Olson & Co., Arthur A., Canfield, O.
OverHead Heaters, Inc., Detroit, Mich.
Petro, Cleveland, O.
Prat-Daniel Corp., East Port Chester, Conn.
Quiet Automatic Oil Burner Corp., Newark, N. J.
Waterman-Waterbury Co., The, Minneapolis, Minn.
Williams Oil-O-Matic Div., Eureka Williams Corp., Bloomington, Ill.

HEATERS, DUCT, GAS

Allan Engineering Co., Dallas, Tex.
Automatic Gas Equipment Co., Pittsburgh, Pa.
Bryant Heater Div., Affiliated Gas Equipment Co., Inc., Cleveland, O.
Burnham Corp., Irvington, N. Y.
Carrier Corp., Syracuse, N. Y.
Dravo Corp., Machinery Div., Pittsburgh, Pa.
General Gas Light Co., Kalamazoo, Mich.
Great National Air Conditioning Corp., Oklahoma City, Okla.
Hayes Furnace Mfg. & Supply Co., Los Angeles, Calif.
International Sales Co., San Francisco, Calif.

Kehm Corp., The, Chicago, Ill.
National Heater Co., St. Paul, Minn.
National Radiator Co., The, Johnstown, Pa.
Norman Products Co., Inc., Columbus, O.
Payne Furnace Div., Affiliated Gas Equipment, Inc., Monrovia, Calif.
Reznor Mfg. Co., Mercer, Pa.
Royal Jet, Inc., Alhambra, Calif.
St. Louis Blow Pipe & Heater Co., Div. of Young Sales Corp., St. Louis, Mo.
Sterling Heat Specialties, Inc., Westfield, Mass.
Surface Combustion Corp., Toledo, O.
United States Radiator Corp., Detroit, Mich.
Utility Appliance Corp., Los Angeles, Calif.

HEATERS, DUCT, OIL

Delta Heating Corp., Trenton, N. J.
Overhead Heaters, Inc., Detroit, Mich.

HEATERS, SUSPENDED, RADIANT, GAS FIRED

Carrier Corp., Syracuse, N. Y.
Day & Night Div., Affiliated Gas Equipment, Inc., Monrovia, Calif.
Nat Corp., Kansas City, Mo.
Olson & Co., Arthur A., Canfield, O.
Power Engineering Co., Chicago, Ill.

HEATERS, UNIT, FOR INSTALLATIONS REQUIRING DUCTWORK

See Furnaces, Forced Warm Air

HEATERS, UNIT, GAS, PROPELLER FAN TYPE

Airtherm Mfg. Co., St. Louis, Mo.
Allan Engineering Co., Dallas, Tex.
American Air Filter Co., Inc., Herman Nelson Products, Louisville, Ky.
American Blower Corp., Detroit, Mich.
American Furnace Co., St. Louis, Mo.
Automatic Gas Equipment Co., Pittsburgh, Pa.
Barwick Mfg. Corp., Wichita, Kan.
Bryant Heater Div., Affiliated Gas Equipment Co., Inc., Cleveland, O.
Carrier Corp., Syracuse, N. Y.
Coroaire Heater Corp., The, Cleveland, O.
Crane Co., Chicago, Ill.
Day & Night Div., Affiliated Gas Equipment, Inc., Monrovia, Calif.
Dravo Corp., Machinery Div., Pittsburgh, Pa.
Fedders-Quigan Corp., Buffalo, N. Y.
General Gas Light Co., Kalamazoo, Mich.
Grinnell Co., Inc., Providence, R. I.
Hastings Air Conditioning Co., Hastings, Nebr.
Hastings Air Control, Inc., Omaha, Nebr.
Henry Furnace Co., The, Medina, O.
International Sales Co., San Francisco, Calif.
Ilg Electric Ventilating Co., Chicago, Ill.
Jackson & Church Co., Saginaw, Mich.
Kisco Boiler & Engineering Co., St. Louis, Mo.
Mission Appliance Corp., Hawthorne, Calif.
Modine Mfg. Co., Racine, Wis.
Mueller Climatrol, Milwaukee, Wis.
Nat Corp., Kansas City, Mo.
National Radiator Co., The, Johnstown, Pa.
Nesbitt, Inc., John J., Philadelphia, Pa.
Norman Products Co., Inc., Columbus, O.
Olsen Mfg. Co., The C. A., Elyria, O.
Payne Furnace Div., Affiliated Gas Equipment Inc., Monrovia, Calif.
Reznor Mfg. Co., Mercer, Pa.
Roberts-Gordon Appliance Corp., Buffalo, N. Y.
Sonner Burner Co., Winfield, Kan.
Sterling Heat Specialties, Inc., Westfield, Mass.
Surface Combustion Corp., Toledo, O.
Trane Co., The, La Crosse, Wis.
United States Air Conditioning Corp., Minneapolis, Minn.
United States Radiator Corp., Detroit, Mich.
Utility Appliance Corp., Los Angeles, Calif.
Vacuum Gas Burner Co., Olean, N. Y.
Webster & Co., Warren, Camden, N. J.
Westinghouse Electric Corp., Sturtevant Div., Hyde Park, Boston, Mass.
Wing Mfg. Co., L. J., Linden, N. J.
Zink Co., John, Tulsa, Okla.

HEATERS, UNIT, OIL, PROPELLER FAN TYPE

Certified Furnace Corp., Trenton, N. J.
Delta Heating Corp., Trenton, N. J.
Weatherall Engineers, Inc., Providence, R. I.

HEATERS, WATER, STORAGE TYPE, DOMESTIC, ELECTRIC

Bard Mfg. Co., Bryan, Ohio.
Bastian-Morley Co., Inc., La Porte, Ind.
Bock Corp., Madison, Wis.
Buckeye Water Heater Co., Cleveland, O.
Cady Co., Sub. General Fittings Co., Providence, R. I.
Clayton & Lambert Mfg. Co., Louisville, Ky.
Cleveland Heater Co., Cleveland, Ohio.
Combustion Engineering Co., Inc., Chattanooga, Tenn.
Crane Co., Chicago, Ill.
Cuprometal Mfg. Corp., Corona, N. Y.
Dowagiac Steel Furnace Co., Dowagiac, Mich.
Fairbanks, Morse & Co., Chicago, Ill.
Frigidaire Div., General Motors Corp., Dayton, Ohio.
Gray & Dudley Co., Nashville, Tenn.
Hotstream Heater Co., Cleveland, Ohio.
Hynes & Cox Electric Corp., Watervliet, N. Y.
Lawson Mfg. Co., New Kensington, Pa.
McGraw Electric Co., Clark Div., Chicago, Ill.
Montag Stove & Furnace Works, Portland, Ore.
Mor-Flo Heater Corp., Cleveland, O.
National Appliances, Inc., New Kensington, Pa.
National Steel Construction Co., Inc., Logansport, Ind.
Norris-Thermador Corp., Los Angeles, Calif.
Pennsylvania Range Boiler Co., Philadelphia, Pa.
Perfection Stove Co., Cleveland, Ohio.
Piatt Products Corp., Lansing, Mich.
Red Spot Electric Co., Tacoma, Wash.
Rheem Mfg. Co., Chicago, Ill.
Smith Corp., A. O., Permaglas Div., Kankakee, Ill.
Stewart-Warner Corp., U. S. Machine Div., Lebanon, Ind.
Sunbeau Heater Co., Los Angeles, Calif.
Tru-Mac Mfg. Co., Reading, Mass.
United States Radiator Corp., Detroit, Mich.
Viking Mfg. Corp., Cleveland, Ohio.
Wayne Home Equipment Co., Inc., Fort Wayne, Ind.
Westinghouse Electric Corp., Pittsburgh, Pa.
Wood Co., John, Conshohocken, Pa.
York-Shipley, Inc., York, Pa.

HEATERS, WATER, STORAGE TYPE, DOMESTIC, GAS FIRED (ALSO LP GAS)

Aldrich Co., Wyoming, Ill.
Aqua-Air Corp., Elmont, L. I., N. Y.
Bard Mfg. Co., Bryan, Ohio.
Bastian Mfg. Co., W. B., Los Angeles, Calif.
Bastian-Morley Co., Inc., LaPorte, Ind.
Bock Corp., Madison, Wis.
Bowen Water Heater Div., Handling Equipment Mfg. Corp., Wixom, Mich.
Bryant Heater Div. Affiliated Gas Equipment, Inc., Cleveland, Ohio.
Buckeye Water Heater Co., Cleveland, Ohio.
Cirkla Products Div. Folsom Co., Inc., Dallas, Texas.
Clayton & Lambert Mfg. Co., Louisville, Ky.
Cleveland Heater Co., Cleveland, Ohio.
Coleman Co., Inc., Wichita, Kans.
Combustion Engineering Co., Inc., Chattanooga, Tenn.
Continental Water Heater Co., Los Angeles, Calif.
Crane Co., Chicago, Ill.
Day & Night Div., Affiliated Gas Equipment, Inc., Monrovia, Calif.
Dearborn Stove Co., Dallas, Tex.
Delco Appliance Div. General Motors Corp., Rochester, N. Y.
Duo-Therm Div., Motor Wheel Corp., Lansing, Mich.
EverHot Heater Co., Detroit, Mich.
Eveready Supply Co., Dallas, Texas.
Fairbanks, Morse & Co., Chicago, Ill.
General Water Heater Corp., Burbank, Calif.
Graham Hambly Co., Los Angeles, Calif.
Hamler Boiler & Tank Co., Chicago, Ill.
Handley-Brown Heater Co., Jackson, Mich. (With circulating fan for augmenting central heating systems)
Harrison Sheet Steel Co., Chicago, Ill.
Hi-Qua Mfg. Co., Philadelphia, Pa.
Hotstream Heater Co., Cleveland, Ohio.

Hot Heater Co. of No. Calif., Oakland, Calif.
Hynes & Cox Electric Corp., Watervliet, N. Y.
Kresky Mfg. Co., Inc., Petaluma, Calif.
Lawson Mfg. Co., New Kensington, Pa.
Los Angeles Gas Appliance Co., Inc., Los Angeles, Calif.
Lovekin Water Heater Co., Philadelphia, Pa.
McDaniel Mfg. Co., Inc., Dallas, Texas.
McGraw Electric Co., Clark Div., Chicago, Ill.
Mor-Flo Heater Corp., Cleveland, O.
Mustee Heater Co., Cleveland, Ohio.
National Appliances, Inc., New Kensington, Pa.
National Steel Construction Co., Inc., Logansport, Ind.
Norge Heat Div., Borg-Warner Corp., Kalamazoo, Mich.
Pacific Coast Heater Corp., San Gabriel, Calif.
Pennsylvania Range Boiler Co., Philadelphia, Pa.
Perfection Stove Co., Cleveland, O.
Pioneer Water Heater Corp., Los Angeles, Calif.
Pittsburgh Water Heater Co., Pittsburgh, Pa.
Rasch Mfg. Corp., Kansas City, Mo.
Republic Heater Corp., Huntington Park, Calif.
Rheem Mfg. Co., New York, N. Y.
Riverside Boiler & Engineering Co., Inc., Fort Worth, Tex.
Ruud Mfg. Co., Pittsburgh, Pa.
Schoedinger, P. O., Columbus, Ohio.
Smith Corp., A. O., Permaglas Div., Kankakee, Ill.
Southern Heater Corp., Compton, Calif.
Southwestern Heater Corp., Dallas, Texas.
Stewart-Warner Corp., U. S. Machine Div., Lebanon, Ind.
Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elvria, O.
Sunbeau Heater Co., Los Angeles, Calif.
Sunshine Mantle Co., Chanute, Kans.
SuperO Mfg. Co., Los Angeles, Calif.
Trager Copper Works, Inc., Maspeth, L.I., N.Y.
United States Radiator Corp., Detroit, Mich.
Utility Appliance Corp., Los Angeles, Calif.
Viking Mfg. Corp., Cleveland, Ohio.
Wayne Home Equipment Co., Inc., Fort Wayne, Ind.
Wood Co., John, Conshohocken, Pa.
York-Shipley, Inc., York, Pa.

HEATERS, WATER, STORAGE TYPE, DOMESTIC, OIL FIRED

Aldrich Co., Wyoming, Ill.
Allen Mfg. Co., Inc., Nashville, Tenn.
Aqua-Air Corp., Elmont, L. I., N. Y.
Bock Corp., Madison, Wis.
Breeze Corps., Inc., Newark, N. J.
Brown Products Co., Forest Hills, N. Y.
Buckeye Water Heater Co., Cleveland, O.
Century Engineering Corp., Cedar Rapids, Iowa.
Clayton & Lambert Mfg. Co., Louisville, Ky.
Coleman Co., Inc., Wichita, Kans.
Crane Co., Chicago, Ill.
Delco Appliance Div., General Motors Corp., Rochester, N. Y.
Dowagiac Steel Furnace Co., Dowagiac, Mich.
Duo-Therm Div., Motor Wheel Corporation, Lansing, Mich.
Electrol Burner Mfg. Co., Rutherford, N. J.
General Oil Heating Corp., West New York, N. J.
Gilcor Products Corp., Dowagiac, Mich.
Gillen Co., J. L., Dowagiac, Mich.
Gilmore & Co., Jackson G., Columbus, Ohio.
Hotstream Heater Co., Cleveland, Ohio.
Hynes & Cox Electric Corp., Watervliet, N. Y.
Johnson Co., S. T., Oakland, Calif. & Philadelphia, Pa.
Kresky Mfg. Co., Inc., Petaluma, Calif.
Kresno-Stamm Co., New York, N. Y.
Little Burner Co., Inc., H. C., San Rafael, Calif.
National Steel Construction Co., Inc., Logansport, Ind.
Nu-Way Corp., Rock Island, Ill.
Perfection Stove Co., Cleveland, Ohio.
Piatt Products Corp., Lansing, Mich.
Preferred Utilities Mfg. Corp., New York, N. Y.
Queen Stove Works, Inc., Albert Lea, Minn.
Quiet Automatic Burner Corp., Newark, N. J.
Ray Oil Burner Co., San Francisco, Calif.
Republic Products Co., Philadelphia, Pa.
Rheem Mfg. Co., Chicago, Ill.
Sunbeau Heater Co., Los Angeles, Calif.
Thermo-Products, Inc., North Judson, Ind.
Timken Silent Automatic Div., Rockwell Spring and Axle Co., Jackson, Mich.
Toledo Heater Co., Toledo, Ohio.
Toridheet Div., Cleveland Steel Products Corp., Cleveland, O.
Viking Mfg. Corp., Cleveland, Ohio.

HEATERS, WATER, STORAGE TYPE, DOMESTIC, STOKER FIRED

Aqua-Air Corp., Elmont, L. I., N. Y.
Gehl Bros. Mfg. Co., West Bend, Wis.

HEATING COILS

See Coils, Heating

HOISTS, HAND AND POWER

American Engineering Co., Philadelphia, Pa. (Power)
American MonoRail Co., Cleveland, Ohio. (Electric)
Bridgeport Chain & Mfg. Co., Bridgeport, Conn.
Chester Hoist Div., National Screw & Mfg. Co., Lisbon, O.
(Hand & power)
Chicago Pneumatic Tool Co., New York, N. Y. (Power)
Chisholm-Moore Hoist Div., Columbus McKinnon Chain Corp.,
Tonawanda, N. Y.
Cleveland Crane & Engineering Co., Wickliffe, Ohio. (Hand &
electric)
Detroit Hoist & Machine Co., Detroit, Mich.
Electro Lift, Inc., Clifton, N. J. (Electric)
Euclid Crane & Hoist Co., Euclid, Ohio. (Electric)
Ford Chain Block Div., American Chain & Cable Co., Inc.,
York, Pa. (Hand & electric)
Harnischfeger Corp., Milwaukee, Wis. (Electric & hand)
Harrington Co., Plymouth Meeting, Pa. (Hand & electric)
Industrial Brownhoist Corp., Bay City, Mich.
Keller Tool Co., Grand Haven, Mich. (Power)
Lisbon Hoist & Crane Co., Lisbon, Ohio. (Electric)
Louden Machinery Co., Fairfield, Iowa.
Lug-All Co., The, Wynnewood, Pa.
McCollum Hoist & Mfg. Co., Downers Grove, Ill.
Philadelphia Chain Block & Mfg. Co., Inc., Philadelphia, Pa.
Reading Crane & Hoist Corp., Reading, Pa. (Hand & power)
Robbins & Myers, Inc., Springfield, Ohio. (Hand & power)
Round Bridgeport Chain & Mfg. Co., Bridgeport, Conn.
(Hand)
Shepard Niles Crane & Hoist Corp., Montour Falls, N. Y.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Thor Power Tool Co., Aurora, Ill. (Power)
Webb Co., Jervis B., Detroit, Mich.
Whiting Corp., Harvey, Ill. (Electric)
Wright Hoist Div. American Chain & Cable Co., York, Pa.
Yale & Towne Mfg. Co., Philadelphia, Pa.

HOODS, DRAFT, GAS

See Draft Diverters, Gas Heaters

HOODS, VENTILATING, FOR KITCHENS

Haveg Corp., Newark, Del. (Plastic)
Heil Process Equipment Corp., Cleveland, O. (Plastic)
Stanthony Corp., Burbank, Calif. (Plastic)
Trade-Wind Motor Fans, Inc., Los Angeles, Calif. (Metal)
Van Dorn Iron Works, Cleveland, O. (Plastic)

HOSE AND FITTINGS, METAL, FLEXIBLE

Aeroquip Corp., Jackson, Mich.
Cobra Metal Hose Div., D K Mfg. Co., Chicago, Ill.
Everhot Products Co., Chicago, Ill.
Flexhaust Co., New York, N. Y. (Non-metallic)
Flexonics Corp., Maywood, Ill.
Hunt & Son, Inc., C. B., Salem, Ohio.
International Metal Hose Co., Detroit, Mich.
Packless Metal Hose, Inc., New Rochelle, N. Y.
Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.
Seamlex Co., Inc., Long Island City, N.Y.
Titeflex, Inc., Springfield, Mass.
United Metal Hose Co., Inc., Long Island City, N. Y.
Universal Metal Hose Co., Chicago, Ill.

HOUSINGS, BLOWER AND FAN

Air Controls, Inc., Cleveland, Ohio.
Ammerman Co., C. L., Minneapolis, Minn.
Barry Blower Co., Minneapolis, Minn.
Brookside Products Co., Inc., McCordsville, Ind.
Brundage Co., Kalamazoo, Mich.
Champion Blower & Forge Co., Lancaster, Pa.
Chicago Blower Corp., Franklin Park, Ill.
Clarage Fan Co., Kalamazoo, Mich.
Commercial Shearing & Stamping Co., Youngstown, Ohio.
DeBothezat Fans Div., American Machine & Metals, Inc.,
East Moline, Ill.
Detroit Stamping Co., Detroit, Mich.
Hastings Air Conditioning Co., Inc., Hastings, Nebr.

Haveg Corp., Newark, Del. (Plastic)
Jan-Air, Inc., Richmond, Ill.
Lau Blower Co., Dayton, Ohio.
Martin Fan & Blower Co., Chicago, Ill.
Nelson Products, Herman, American Air Filter Co., Inc., Louis-
ville, Ky.
Northern Blower Co., Cleveland, Ohio.
Power Engineering Co., Chicago, Ill.
Revcor, Carpentersville, Ill.
Sandberg Mfg. Co., Portland, Ore.
Trade-Wind Motorfans, Inc., Los Angeles, Calif.
United States Air Conditioning Corp., Minneapolis, Minn.
Utica Products, Inc., Utica, N. Y.
Utility Fan Corp., Div. of Utility Appliance Corp., Los Ange-
les, Calif.
Viking Air Conditioning Div., National Radiator Co., Cleve-
land, O.
Westinghouse Electric Corp., Sturtevant Div., Boston, Mass.

HUMIDIFIER FITTINGS

See Fittings, Humidifier, Water Line

HUMIDIFIER VALVES

See Valves, Humidifier, Water Level

HUMIDIFIERS, FURNACE, AUTOMATIC, EVAPORATIVE

Auto-Flo Corp., Detroit, Mich.
Automatic Humidifier Co., Cedar Falls, Iowa.
Char-Gale Mfg. Co., Anoka, Minn.
Cleveland Humidifier Co., Cleveland, Ohio.
Econo-Matic Products Co., Inc., Detroit, Mich.
Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill.
Maid-O'-Mist, Inc., Chicago, Ill.
Mueller Climatrol, Milwaukee, Wis.
Pfening Co., Fred D., Columbus, Ohio.
Skilbeck Mfg. Co., Kenosha, Wis.
Skuttle Mfg. Co., Milford, Mich.
Steel Products Engineering Co., Combustioneer Div., Spring-
field, O.
Viking Air Conditioning Div., National Radiator Co., Cleve-
land, O.

HUMIDIFIERS, FURNACE, AUTOMATIC, SPRAY

Century Engineering Corp., Cedar Rapids, Iowa.
Daffin Mfg. Co., Lancaster, Pa.
Handelan Washed Air Co., Minneapolis, Minn.
Little Giant Vaporizer Co., Oklahoma City, Okla.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Pollenex, Chicago, Ill.
Somers, Inc., H. J., Detroit, Mich.
Spray Engineering Co., Somerville, Mass.
Spraying Systems Co., Chicago, Ill.
Walton Laboratories, Inc., Irvington, N. J.
Water Cooling Corp., New York, N. Y.

HUMIDIFIERS, PORTABLE

Daffin Mfg. Co., Lancaster, Pa.
Kauffman Air Conditioning Corp., St. Louis, Mo.
Palmer Mfg. Corp., Phoenix, Ariz.
Walton Laboratories, Inc., Irvington, N. J.

HUMIDISTATS

See Controls

HUMIDITY RECORDERS

See Recorders, Humidity

HYGROMETERS

American Instrument Co., Inc., Silver Spring, Md.
Bristol Co., Waterbury, Conn.
Fee and Stewwedel, Inc., Chicago, Ill.
Foxboro Co., Foxboro, Mass.
Friez Instrument Div., Bendix Aviation Corp., Baltimore, Md.
G. M. Mfg. Co., New York, N. Y.
General Scientific Equipment Co., Philadelphia, Pa.
H-B Instrument Co., Philadelphia, Pa.
Johnson Service Co., Milwaukee, Wis.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Moeller Instrument Co., Richmond Hill, N. Y.
Palmer Thermometers, Inc., Cincinnati, Ohio.
Philadelphia Thermometer Co., Philadelphia, Pa.
Precision Thermometer & Instrument Co., Philadelphia, Pa.

Taylor Instrument Companies, Rochester, N. Y.
Walton Laboratories, Inc., Irvington, N. J.
Weksler Thermometer Corp., Freeport, N. Y.
Weston Electrical Instrument Corp., Newark, N. J.

INCINERATORS

Autogas Co., Bellewood, Ill.
Bowser, Inc., Cairo, Ill. (Gas fired)
Calcinator Corp., Bay City, Mich.
Cole Hot Blast Mfg. Co., Chicago, Ill.
Coroaire Heater Corp., Cleveland, O.
Cribben and Sexton Co., Chicago, Ill.
Donley Bros. Co., Cleveland, O.
Duo-Therm Div., Motor Wheel Corp., Lansing, Mich.
Gasinator Mfg. Co., Cleveland, O.
Gas-Possall Corp., Cleveland, O.
General Engineering Co., Bay City, Mich.
Goder Incinerator Corp., Chicago, Ill.
Harmond Co., Cleveland, O.
Heimbach Incinerator Mfg. Co., St. Paul, Minn.
Henry Furnace Co., Medina, O.
Herrick Grate Co., Geo. S., Syracuse, N. Y.
Holland Furnace Co., Holland, Mich.
Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill.
Incinerator Products Co., Detroit, Mich.
Kerner Incinerator Div., Morse-Boulger Destructor Co., New York, N.Y.
King Stove and Range Co., Sheffield, Ala.
Locke Stove Co., Kansas City, Mo.
Lyons, Edward W., Youngstown, O.
Majestic Co., Inc., Huntington, Ind.
Martin Stamping & Stove Co., Huntsville, Ala.
Modern Controls Corp., Centerline, Mich.
Mueller Climatrol, Milwaukee, Wis.
Nelson Industries, Pittsburgh, Pa.
Olsen Mfg. Co., C. A., Elyria, O.
Pettit & Sons Co., Inc., W. T., Youngstown, O.
Queen Stove Works, Inc., Albert Lea, Minn.
Schwab Furnace Co., Milwaukee, Wis.
Standard Fuel Engineering Co., Detroit, Mich.
Syracuse Alloy Metals Corp., Syracuse, N. Y.
Thompson Mfg. Co., A. F., Huntington, W. Va.

INDICATING THERMOMETERS

See Thermometers, Indicating

INSULATING CEMENT

See Cement, Insulating

INSULATION, BUILDING

Acme Asbestos Covering & Flooring Co., Chicago, Ill. (Rock wool)
Alfol Div., Reflectal Corp., New York, N. Y. (Blanket)
American Flange & Mfg. Co., Inc., New York, N. Y. (Reflective)
American Hair & Felt Co., Chicago, Ill. (Hair)
American Sisalkraft Corp., Attleboro, Mass. (Reflective)
Angier Corp., Framingham, Mass. (Reflective)
Armstrong Cork Co., Lancaster, Pa.
Baldwin-Hill Co., Trenton, N. J. (Mineral wool)
Barnhardt Mfg. Co., Charlotte, N. C.
Barrett Div. Allied Chemical & Dye Corp., New York, N. Y. (Rock wool)
Berger Furnace Corp., Belle Vernon, Pa. (Rock wool)
Cabot, Inc., Samuel, Boston, Mass.
Carey Co., Philip, Cincinnati, Ohio. (Mineral wool)
Celotex Corp., Chicago, Ill.
Certain-teed Products Corp., Ardmore, Pa. (Glass fiber)
Chamberlin Co. of America, Detroit, Mich. (Rock wool)
Coast Insulating Products, Los Angeles, Calif. (Granulated and batts)
Cork Insulation Co., New York, N. Y. (Cork)
Eagle-Picher Co., Cincinnati, Ohio. (Mineral Wool)
Flintkote Co., New York, N. Y. (Fibre board & insulating wool)
Infra Insulation, Inc., New York, N. Y. (Accordion aluminum)
Insulite Div. Minnesota & Ontario Paper Co., Minneapolis, Minn. (Wood fibre)
Johns-Manville, New York, N. Y.
Johnston Foil Mfg. Co., St. Louis, Mo. (Paper backed foil)
Kearby Co., Robert A., New York, N. Y. (Asbestos)
Kimberly-Clark Corp., Neenah, Wis.

Lehon Co., Bellewood, Ill. (Rock wool, paper)
Libbey-Owens-Ford Glass Co., Toledo, Ohio. (Fiber glass)
Lockport Mills Inc., Lockport, N. Y. (Blanket)
Meadows, Inc., W. R., Elgin, Ill. (Cork & Asphalt)
Mundet Cork Corp., North Bergen, N. J. (Cork)
National Cork Co., Englewood, N. J. (Cork)
National Gypsum Co., Buffalo, N. Y. (Fiber board)
Owens-Corning Fiberglas Corp., Toledo, Ohio. (Board & blanket)
Pacific Lumber Co., San Francisco, Calif. (Wood fiber)
Pittsburgh Corning Corp., Pittsburgh, Pa. (Cellular glass)
Pittsburgh Plate Glass Co., Pittsburgh, Pa. (Cellular glass)
Plastergon Wall Board Co., Buffalo, N. Y.
Quaker State Metals Co., Lancaster, Pa. (Aluminum reflective)
Reynolds Metals Co., Louisville, Ky. (Aluminum)
Riverton Lime & Stone Co., Inc., Riverton, Va. (Mineral wool)
Robinson Insulation Co., Great Falls, Mont. (Vermiculite)
Ruberoid Co., New York, N. Y. (Aluminum foil)
Silvercote Products, Inc., Chicago, Ill. (Reflective type)
Sprayo-Flake Co., Chicago, Ill. (Mineral fiber & adhesive)
Standard Asbestos Mfg. Co., Chicago, Ill. (Asbestos)
Standard Rolling Mills, Inc., Brooklyn, N. Y. (Reflective)
Tennessee Products & Chemical corp., Nashville, Tenn. (Mineral wool)
United Cork Cos., Kearney, N. J.
United States Gypsum Co., Chicago, Ill. (Mineral wool)
United States Mineral Wool Co., Stanhope, N. J. (Mineral wool)
U. S. Rock Wool Co., Salt Lake City, Utah. (Blowing wool, batt and blanket)
Western Mineral Products Co., Minneapolis, Minn. (Vermiculite)
Western Rock Wool Corp., Huntington, Ind. (Fill)
Wilson & Co., Inc., Chicago, Ill. (Hair, Felt)
Wilson, Inc., Grant, Chicago, Ill. (Rock Wool)
Wood Conversion Co., St. Paul, Minn.
Zonolite Co., Chicago, Ill.

INSULATION, DUCT

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Alfol Div., Reflectal Corp., New York, N. Y. (Aluminum foil)
American Hair & Felt Co., Chicago, Ill. (Hair felt)
Armstrong Cork Co., Lancaster, Pa.
Baldwin-Hill Co., Trenton, N. J. (Mineral wool)
Cabot, Inc., Samuel, Boston, Mass.
Carey Mfg. Co., Philip, Cincinnati, Ohio.
Celotex Corp., Chicago, Ill.
Coast Insulating Products, Los Angeles, Calif. (rolls)
Cork Insulation Co., Inc., New York, N. Y. (Cork)
Eagle-Picher Co., Cincinnati, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Glass Fibers Inc., Toledo, O. (Glass fiber)
Gustin-Bacon Mfg. Co., Kansas City, Mo. (Glass fiber)
Hinde & Dauch Paper Co., Sandusky, Ohio.
Johns-Manville, New York, N. Y.
Kearby & Mattison Co., Ambler, Pa. (Asbestos)
Kearby Co., Robert A., New York, N. Y. (Aircell cork & asbestos)
Keystone Asphalt Products Co., Chicago, Ill.
LaCled-Christy Clay Products Co., St. Louis, Mo.
Libbey-Owens-Ford Glass Co., Toledo, Ohio. (Fiber glass)
Lockport Mills Inc., Lockport, N. Y. (Blanket)
Mortell Co., J. W., Kankakee, Ill. (Cork coating)
Mundet Cork Corp., North Bergen, N. J. (Cork)
Munn and Steele, Inc., Newark, N. J. (Plastic)
National Cork Co., Englewood, N. J. (Cork)
National Gypsum Co., Buffalo, N. Y. (Rock Wool)
Norristown Magnesia & Asbestos Co., Norristown, Pa.
Owens-Corning Fiberglas Corp., Toledo, Ohio. (Rigid & flexible with facings)
Pabco Products Inc., San Francisco, Calif. (Magnesia)
Pittsburgh Corning Corp., Pittsburgh, Pa. (Cellular glass)
Pittsburgh Plate Glass Co., Pittsburgh, Pa. (Cellular Glass)
Quigley Co., Inc., New York, N. Y.
Reflectal Corp., Subsidiary Borg-Warner Corp., Chicago, Ill. (Aluminum)
Refractory & Insulation Corp., New York, N. Y. (Inside duct lining)
Reynolds Metals Co., Louisville, Ky. (Aluminum)
Robinson Insulation Co., Great Falls, Mont.
Ruberoid Co., New York, N. Y. (Asbestos)
Sall Mountain Co., Hamilton, O. (Asbestos)
Sprayo-Flake Co., Chicago, Ill. (Mineral fiber & adhesive)
Standard Asbestos Mfg. Co., Chicago, Ill. (Asbestos)
United Cork Cos., Kearney, N. J.
United States Mineral Wool Co., Stanhope, N. J. (Mineral wool)
United States Rubber Co., New York, N. Y. (Sound deadening)
Western Felt Works, Chicago, Ill. (Felt)

Wilson & Co., Inc., Chicago, Ill. (Hair & felt)
Wilson, Inc., Grant, Chicago, Ill.
Wood Conversion Co., St. Paul, Minn.

INSULATION, FURNACE

Acme Asbestos Covering & Flooring Co., Chicago, Ill. (Asbestos, rock wool)
Alfol Div. Reflectal Corp., New York, N. Y. (Aluminum foil & asbestos combination)
Babcock & Wilcox Co., Refractories Div., New York, N. Y. (Firebrick, cement mixes)
Baldwin-Hill Co., Trenton, N. J. (Mineral wool)
Carey Mfg. Co., Philip, Cincinnati, Ohio. (Asbestos & magnesia)
Chicago Fire Brick Co., Chicago, Ill. (Mineral wool & plastic cement)
Coast Insulating Products, Los Angeles, Calif. (Plastic cement)
Eagle-Picher Co., Cincinnati, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Glass Fibers Inc., Toledo, O. (Glass fiber)
Green Fire Brick Co., A. P., Mexico, Mo. (Mineral wool)
Gustin-Bacon Mfg. Co., Kansas City, Mo. (Glass fiber)
Johns-Manville, New York, N. Y.
Keasbey & Mattison Co., Ambler, Pa. (Asbestos)
Keasby Co., Robert A., New York, N. Y. (Asbestos cement, magnesium blocks)
LaCie-Christy Clay Products Co., St. Louis, Mo. (Cement & blocks)
Norristown, Magnesia & Asbestos Co., Norristown, Pa.
Owens-Corning Fiberglass Corp., Toledo, Ohio. (Foil faced)
Pabco Products Inc., San Francisco, Calif.
Plibrico Jointless Firebrick Co., Chicago, Ill. (Mineral Wool)
Quigley Co., Inc., New York, N. Y.
Refractory & Insulation Corp., New York, N. Y. (Block, blanket)
Robinson Insulation Co., Great Falls, Mont. (High temperature cement)
Ruberoid Co., New York, N. Y. (Asbestos)
Standard Asbestos Mfg. Co., Chicago, Ill. (Asbestos)
United States Mineral Wool Co., Stanhope, N. J. (Mineral wool)
U. S. Rock Wool Co., Salt Lake City, Utah. (Rock wool cement)
Western Mineral Products Co., Minneapolis, Minn. (Vermiculite)
Wilson, Inc., Grant, Chicago, Ill. (Asbestos)

KITCHEN FANS

See Fans, Kitchen

LAMPS, GERMICIDAL

General Electric Co., Cleveland, Ohio.
Merchandising & Mfg. Associates, Inc., Lancaster, Pa.
Sperti Faraday, Inc., Cooper Hewitt Div., Cincinnati, O.
Westinghouse Electric Corp., Bloomfield, N. J.

LEAD SHEETS

See Sheets, Metal, Lead

LIFTS, SKYLIGHT

Biersach & Niedermeyer Co., Milwaukee, Wis.
Danzon Metal Works Co., Hagerstown, Md.
Levow, David, New York, N. Y.
Park City Cornice Works, Inc., Bridgeport, Conn.
Perkinson, William J., Chicago, Ill.
Van Noorden Co., E., Boston, Mass.
Weiss & Co., H., New York, N. Y.

LIMIT CONTROLS

See Controls, Limit

LININGS, BLOW PIPE

Goodyear Tire and Rubber Co., Inc., Akron, O.

LININGS, CHIMNEY

Condensation Engineering Corp., Chicago, Ill. (Vitreous enamel)
Excelsior Steel Furnace Co., Chicago, Ill. (Stainless steel)
Wallace Co., William, Metabestos Div., Belmont, Calif.

LINKS, FUSIBLE

Division Lead Co., Summit, Ill.
Empire Metal Co., Syracuse, N. Y.
General Register Corp., Cedar Grove, N. J.
Morse-Smith-Morse Co., Watertown, Mass.

Richards-Wilcox Mfg. Co., Aurora, Ill.
Steffens-Amberg Co., Newark, N. J.
Westinghouse Electric Corp., Pittsburgh, Pa.

LOCK FORMING

See Machines, Lock Forming

LOUVERS AND SHUTTERS, AUTOMATICALLY OR MANUALLY CONTROLLED

Aerovent Fan Co., Inc., Piqua, O.
Air Conditioning Engineering Co., Cambridge, Mass.
Air Controls, Inc., Cleveland, Ohio.
Air Conditioning Products Co., Detroit, Mich.
Airmaster Corp., Chicago, Ill.
Air-Path Products Co., Baltimore, Md.
Air & Refrigeration Corp., New York, N. Y.
Allen Cooler & Ventilator Inc., Rochester, Mich.
American Cooler Corp., Jacksonville, Fla.
American Steel Band Co., Pittsburgh, Pa.
American Warming & Ventilating Co., Toledo, Ohio.
Ammerman Co., C. L., Minneapolis, Minn.
Arex Co., Chicago, Ill.
Arlington Electric Co., St. Louis, Mo.
Babbins, Inc., New York, N. Y.
Barber-Colman Co., Rockford, Ill.
Belco Industries, Inc., St. Louis, Mo.
Berns Mfg. Co., Chicago, Ill.
Bertram Co., Harvey P., Cincinnati, Ohio.
Biersach & Niedermeyer Co., Milwaukee, Wis.
Bishop & Babcock Mfg. Co., Cleveland, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Burt Mfg. Co., Akron, Ohio.
Champion Blower & Forge Co., Lancaster, Pa.
Chelsea Fan & Blower Co., Inc., Plainfield, N. J.
Cirklaire Products Div., Folsom Co., Inc., Dallas, Tex.
Clay Equipment Corp., Cedar Falls, Iowa.
Commercialaire, Inc., Brooklyn, N. Y.
Controlair Mfg. Co., Los Angeles, Calif.
Eagle-Picher Co., Cincinnati, Ohio.
Electrovent Fan & Mfg. Co., Chicago, Ill.
Elgo Shutter & Mfg. Co., Detroit, Mich.
Empire Ventilation Equipment Co., Long Island City, N. Y.
Frigid, Inc., Brooklyn, N. Y.
General Blower Co., Morton Grove, Ill.
Hunter Fan & Ventilating Co., Memphis, Tenn.
International Engineering, Inc., Dayton, Ohio.
Jordan & Co., Inc., Paul R., Indianapolis, Ind.
Kirk & Blum Mfg. Co., Cincinnati, Ohio.
Lakewood Engineering & Mfg. Co., Chicago, Ill.
Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
Martin Fan & Blower Co., Chicago, Ill.
Maysteel Products, Inc., Milwaukee, Wis.
Meier Electric & Machine Co., Inc., Indianapolis, Ind.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Myers Electric Co., Inc., Pittsburgh, Pa.
Nelson Products, Herman, American Air Filter Co., Louisville, Ky.
Overly Mfg. Co., Greensburg, Pa.
Peerless Electric Co., Warren, Ohio.
Perkinson, William J., Chicago, Ill.
Reed Unit-Fans, Inc., New Orleans, La.
Riggin Metal Products, Kankakee, Ill.
Robertson Co., H. H., Pittsburgh, Pa.
Schwitzer-Cummins Co., Indianapolis, Ind.
Signal Electric Div., King-Seely Corp., Menominee, Mich.
Simpson Co., Oakland, Calif.
Sommerfeld Louvres, Inc., New York, N. Y.
Standard Electric Mfg. Co., Inc., West Berlin, N. J.
Standard Stamping & Perforating Co., Chicago, Ill.
Swartwout Co., Cleveland, Ohio.
Titus, Inc., Waterloo, Ia.
Titus Mfg. Corp., Waterloo, Iowa.
Tuttle & Bailey, Inc., New Britain, Conn.
United States Register Co., Battle Creek, Mich.
Uno Ventilator Co., Malden, Mass.
Van Noorden Co., E., Boston, Mass.
Warner Ventilator Co., LeGrange, Ind.
Wing Mfg. Co., L. J., Linden, N. J.
Young Regulator Co., Cleveland, Ohio.

LOUVERS, STATIONARY

Aerovent Fan Co., Inc., Piqua, O.
Air Conditioning Engineering Co., Cambridge, Mass.
Air Control Products, Inc., Coopersville, Mich.
Air-Path Products Co., Baltimore, Md.
Allen Cooler & Ventilator Inc., Rochester, Mich.
American Foundry & Furnace Co., Bloomington, Ill.

American Steel Band Co., Pittsburgh, Pa.
 American Warming & Ventilating Co., Toledo, Ohio.
 Ammerman Co., C. L., Minneapolis, Minn.
 Appleton Supply Co., Inc., Appleton, Wis.
 Arex Co., Chicago, Ill.
 Barber-Colman Co., Rockford, Ill.
 Berger Furnace Corp., Belle Vernon, Pa.
 Burt Mfg. Co., Akron, Ohio.
 C&O Steel Products Corp., Chicago, Ill.
 Cirklaire Products Div., Folsom Co., Inc., Dallas, Tex.
 Commercialaire, Inc., Brooklyn, N. Y.
 Donley Bros. Co., Cleveland, O.
 Elgo Shutter & Mfg. Co., Detroit, Mich.
 Empire Ventilation Equipment Co., Long Island City, N. Y.
 Firecraft Corp., Chicago, Ill.
 Frigid, Inc., Brooklyn, N. Y.
 Hemphill Co., A. D., Lake City, Minn.
 Industrial Equipment Co., The, Minster, O.
 Inland Steel Products Co., Milwaukee, Wis.
 Kirk & Blum Mfg. Co., Cincinnati, O.
 Leslie Welding Co., Inc., Chicago, Ill.
 Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
 Molloy Machine Corp., Chicago, Ill.
 Muckle Mfg. Co., Owatonna, Minn.
 Perkinson, William J., Chicago, Ill.
 Robertson Co., H. H., Pittsburgh, Pa.
 Simpson Co., Oakland, Calif.
 Sommerfeld Louvres, Inc., New York, N. Y.
 Swartwout Co., Cleveland, Ohio.
 Titus Mfg. Corp., Waterloo, Iowa.
 United States Gypsum Co., Chicago, Ill.
 United States Register Co., Battle Creek, Mich.
 Uno Ventilator Co., Malden, Mass.
 Waterloo Register Co., Inc., Waterloo, Ia.
 Wilder Products Co., Springfield, O.

LOUVERS, SUN REFLECTING

Kaiser Aluminum & Chemical Corp., Oakland, Calif.
 Kawnner Co., Niles, Mich.
 Reflectal Corp., Subsidiary Borg-Warner Corp., Chicago, Ill.

MACHINERY, SHEET METAL, REBUILT AND USED

Capacity 10 ga or lighter

Acme Equipment Co., Inc., Chicago, Ill.
 Brooks Co., Inc., B. D., Boston, Mass.
 Burns Machinery Co., F. W., Milwaukee, Wis.
 Federal Machinery Co., New York, N. Y.
 Harris Machinery Co., Minneapolis, Minn.
 Hyman & Sons, Joseph, Philadelphia, Pa.
 Interstate Machinery Co., Inc., Chicago, Ill.
 Machine Rebuilding Co., Detroit, Mich.
 Machinery Liquidating Co., Detroit, Mich.
 Potts-Farrington Co., Philadelphia, Pa.
 Reiner & Campbell Co., Inc., Newark, N. J.
 St. Louis Tool Co., St. Louis, Mo.
 Stueck, Inc., W. Whitney, Old Saybrook, Conn.

MACHINES, SHEET METAL WORKING, ANGLE IRON BENDING

Excelsior Tool & Machine Co., East St. Louis, Ill.
 O'Neil-Irwin Mfg. Co., Lake City, Minn.

MACHINES, SHEET METAL WORKING, BAR FOLDING, HAND

Barth Mfg. Co., Milldale, Conn.
 Fallsington Mfg. Co., Fallsington, Pa.
 Niagara Machine & Tool Works, Buffalo, N. Y.
 Peck, Stow & Wilcox Co., Southington, Conn.
 St. Louis Tool Co., St. Louis, Mo.
 Smith, R. E., Waukegan, Ill.

MACHINES, SHEET METAL WORKING, BEADING, HAND

Barth Mfg. Co., Milldale, Conn.
 Kraus Mfg. Co., Chas. E., Louisville, Ky.
 Niagara Machine & Tool Works, Buffalo, N. Y.
 Packham Crimper Co., Mechanics-Burgh, Ohio.
 Peck, Stow & Wilcox Co., Southington, Conn.
 Robertson, F. L., Buffalo, N. Y.

MACHINES, SHEET METAL WORKING, BEADING, POWER

American Pullmax Co., Inc., Chicago, Ill.
 Baker Bros., Inc., Toledo, Ohio.

Callahan Can Machine Co., Inc., Brooklyn, N. Y.
 Fallsington Mfg. Co., Fallsington, Pa.
 Kane & Roach, Inc., Syracuse, N. Y.
 Kling Bros. Engineering Works, Chicago, Ill.
 Maplewood Machinery Co., Chicago, Ill.
 Niagara Machine & Tool Works, Buffalo, N. Y.
 Peck, Stow & Wilcox Co., Southington, Conn.
 Swain Mfg. Co., Fred J., St. Louis, Mo.
 Wales-Strippit Corp., North Tonawanda, N. Y.

MACHINES, SHEET METAL WORKING, BENDERS

Bath Company, Cyril, Cleveland, Ohio. (Contour formers)
 Champion Blower & Forge Co., Lancaster, Pa.
 Connors & Davis Sales Corp., West Springfield, Mass.
 Excelsior Tool & Machine Co., East St. Louis, Ill. (Circular bending)
 Hendley & Whittemore Co., Beloit, Wis.
 Hossfeld Mfg. Co., Winona, Minn.
 Kane & Roach, Inc., Syracuse, N. Y.
 Kling Bros. Engineering Works, Chicago, Ill.
 Knights Co., James, Sandwich, Ill.
 Martens & Stormoen, West Quincy, Mass.
 O'Neil-Irwin Mfg. Co., Lake City, Minn.
 Pedrick Tool & Machine Co., Philadelphia, Pa.
 Smith, R. E., Waukegan, Ill.
 Whitney Metal Tool Co., Rockford, Ill.

MACHINES, SHEET METAL WORKING, BRAKES, HAND

Acme Equipment Co., Inc., Chicago, Ill.
 Barth Mfg. Co., Milldale, Conn.
 Berkroy Products Co., Burbank, Calif.
 Dreis & Krump Mfg. Co., Chicago, Ill.
 Excelsior Tool & Machine Co., East St. Louis, Ill.
 G. & S. Machine Shop, Detroit, Mich.
 Hallmor, Inc., Bridgeville, Pa.
 Harris, A. R., Hammond, Ind.
 Niagara Machine & Tool Works, Buffalo, N. Y.
 O'Neil-Irwin Mfg. Co., Lake City, Minn.
 Peck, Stow & Wilcox Co., Southington, Conn.
 Smith, R. E., Waukegan, Ill.
 Stueck, Inc., W. Whitney, Old Saybrook, Conn.
 Ward Machinery Co., Chicago, Ill.
 Webb Machine & Tool Co., Imperial, Pa.
 Whitney Metal Tool Co., Rockford, Ill.

MACHINES, SHEET METAL WORKING, BRAKES, PORTABLE

Berkroy Products Co., Burbank, Calif.
 Dreis & Krump Mfg. Co., Chicago, Ill.
 Fayette Mfg. Co., Fayette, O.
 G. & S. Machine Shop, Detroit, Mich.
 Hallmor, Inc., Bridgeville, Pa.
 Harris, A. R., Hammond, Ind.
 O'Neil-Irwin Mfg. Co., Lake City, Minn.
 Peck, Stow & Wilcox Co., Southington, Conn.
 Stueck, Inc., W. Whitney, Old Saybrook, Conn.
 Vyke Mfg. Co., Denver, Colo.
 Webb Machine & Tool Co., Imperial, Pa.
 Whitney Metal Tool Co., Rockford, Ill.

MACHINES, SHEET METAL WORKING, BRAKES, POWER

Airtherm Mfg. Co., St. Louis, Mo.
 Bath Co., Cyril, Solon, O.
 Cincinnati Shaper Co., Cincinnati, Ohio.
 Cleveland Crane & Engineering Co., Wickliffe, Ohio.
 Dreis & Krump Mfg. Co., Chicago, Ill.
 Heartley Machine & Tool Co., Toledo, Ohio.
 Munton Mfg. Co., Franklin Park, Ill.
 Niagara Machine & Tool Works, Buffalo, N. Y.
 Service Machine Co., Inc., Elizabeth, N. J.
 Stueck, Inc., W. Whitney, Old Saybrook, Conn.
 Verson Allsteel Press Co., Chicago, Ill.
 Whitney Metal Tool Co., Rockford, Ill.

MACHINES, SHEET METAL WORKING, BRAKES, PRESS (AND DIES)

Airtherm Mfg. Co., St. Louis, Mo.
 American Actuator Corp., New York, N. Y.
 Bath Co., Cyril, Solon, O.
 Connors & Davis Sales Corp., West Springfield, Mass.
 Dreis & Krump Mfg. Co., Chicago, Ill.
 Doelger & Kirsten, Inc., Milwaukee, Wis.

Niagara Machine & Tool Works, Buffalo, N. Y.
O'Neil-Irwin Mfg. Co., Lake City, Minn.
Pacific Industrial Mfg. Co., Oakland, Calif.
Service Machine Co., Inc., Elizabeth, N. J.
Stueck, Inc., W. Whitney, Old Saybrook, Conn.
Verson Allsteel Press Co., Chicago, Ill.

MACHINES, SHEET METAL WORKING, BURRING, HAND

Barth Mfg. Co., Milldale, Conn.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.

MACHINES, SHEET METAL WORKING, BURRING, POWER

Maplewood Machinery Co., Chicago, Ill.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Rotor Tool Co., Cleveland, Ohio.
Thor Power Tool Co., Aurora, Ill.

MACHINES, SHEET METAL WORKING, CLEAT BENDING, HAND

Niagara Machine & Tool Works, Buffalo, N. Y.
Smith, R. E., Waukegan, Ill.

MACHINES, SHEET METAL WORKING, COMBINATION, HAND

Beading, Burring, Turning, Wiring, etc.

Barth Mfg. Co., Milldale, Conn.
Ingram Machinery Co., Picher, Okla.
Maplewood Machinery Co., Chicago, Ill.
Niagara Machine & Tool Works, Buffalo, N. Y.
Packham Crimper Co., Mechanics-Burgh, Ohio.
Peck, Stow & Wilcox Co., Southington, Conn.

MACHINES, SHEET METAL WORKING, COMBINATION, POWER

Beading, Burring, Turning, Wiring, etc.

Maplewood Machinery Co., Chicago, Ill.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Wysong & Miles Co., Greensboro, N. C.

MACHINES, SHEET METAL WORKING, CRIMPING, HAND

Barth Mfg. Co., Milldale, Conn.
Fallsington Mfg. Co., Fallsington, Pa.
Ingram Machinery Co., Picher, Okla.
Kraus Mfg. Co., Chas. E., Louisville, Ky.
Maxant Button & Supply Co., Chicago, Ill.
Merchandising & Mfg. Associates, Inc., Lancaster, Pa.
Niagara Machine & Tool Works, Buffalo, N. Y.
Packham Crimper Co., Mechanics-Burgh, Ohio.
Peck, Stow & Wilcox Co., Southington, Conn.

MACHINES, SHEET METAL WORKING, CRIMPING, POWER

Fallsington Mfg. Co., Fallsington, Pa.
Maplewood Machinery Co., Chicago, Ill.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Swaine Mfg. Co., Fred J., St. Louis, Mo.

MACHINES, SHEET METAL WORKING, DOUBLE SEAMING, ROOF, POWER

Flagler Corp., The, Detroit, Mich.
Lockformer Co., Chicago, Ill.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Swaine Mfg. Co., Fred J., St. Louis, Mo.

MACHINES, SHEET METAL WORKING, DUCT FORMING, ROUND

Peck, Stow & Wilcox Co., Southington, Conn.

MACHINES, SHEET METAL WORKING, ELBOW, HAND

Barth Mfg. Co., Milldale, Conn.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.

MACHINES, SHEET METAL WORKING, ELBOW, POWER

Kane & Roach, Inc., Syracuse, N. Y.
Maplewood Machinery Co., Chicago, Ill.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.

MACHINES, SHEET METAL WORKING, FILING

DoALL Co., Des Plaines, Ill.
Grob Inc., Grafton, Wis.

MACHINES, SHEET METAL WORKING, FLANGING, HAND

Barth Mfg. Co., Milldale, Conn.
Lockformer Co., Chicago, Ill.
Maplewood Machinery Co., Chicago, Ill.
Niagara Machine & Tool Works, Buffalo, N. Y.
Original Metal Forming Machine Co., Seattle, Wash.
Peck, Stow & Wilcox Co., Southington, Conn.
Smith, R. E., Waukegan, Ill.
Ward Machinery Co., Chicago, Ill.

MACHINES, SHEET METAL WORKING, FLANGING, POWER

Baker Bros., Inc., Toledo, Ohio.
Bath Co., Cyril, Solon, O.
Callahan Can Machine Co., Inc., Brooklyn, N. Y.
Engel Sheet Metal Equipment, Inc., St. Louis, Mo.
Fallsington Mfg. Co., Fallsington, Pa.
Flagler Corp., The, Detroit, Mich.
Kling Bros. Engineering Works, Chicago, Ill.
Lockformer Co., Chicago, Ill.
Maplewood Machinery Co., Chicago, Ill.
Niagara Machine & Tool Works, Buffalo, N. Y.
Pacific Industrial Mfg. Co., Oakland, Calif.
Peck, Stow & Wilcox Co., Southington, Conn.
Swaine Mfg. Co., Fred J., St. Louis, Mo.
Ward Machinery Co., Chicago, Ill.
Whiting Corp., Harvey, Ill.

MACHINES, SHEET METAL WORKING, GROOVING, HAND

Barth Mfg. Co., Milldale, Conn.
Enderle, Inc., Ltd., Frank X., Los Angeles, Calif.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Whitney Metal Tool Co., Rockford, Ill.

MACHINES, SHEET METAL WORKING, GROOVING, POWER

Hardco Products, Wantagh, N. Y.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Standard Power Groove Machine Corp., New York, N. Y.

MACHINES, SHEET METAL WORKING, GUTTER FORMING, HAND

Kane & Roach, Inc., Syracuse, N. Y. (Power)
Robertson, F. L., Buffalo, N. Y.
Stamco, Inc., New Bremen, Ohio.

MACHINES, SHEET METAL WORKING, LOCK FORMING, POWER

Connors & Davis Sales Corp., West Springfield, Mass.
Fallsington Mfg. Co., Fallsington, Pa.
Flagler Corp., The, Detroit, Mich.
Kane & Roach, Inc., Syracuse, N. Y.
Lockformer Co., Chicago, Ill.
Maplewood Machinery Co., Chicago, Ill.

MACHINES, SHEET METAL WORKING, NIBBLING, HAND

Fenway Machine Sales Co., Inc., Philadelphia, Pa.
Heinrich Tools, Inc., Racine, Wis.
Nord International Corp., Denville, N. J.

MACHINES, SHEET METAL WORKING, NIBBLING, POWER

Baker Bros., Inc., Toledo, Ohio.
Berkroy Products Co., Burbank, Calif.

Campbell Machine Div. American Chain & Cable Co., Inc., Bridgeport, Conn.
H. A. Mfg. Co., York, Pa.
Libert Machine Co., Green Bay, Wis.
Nord International Corp., Denville, N. J.
St. Louis Tool Co., St. Louis, Mo.
Savage Co., W. J., Knoxville, Tenn.
Service Machine Co., Inc., Elizabeth, N. J.
Thor Power Tool Co., Aurora, Ill.
Wales-Strippit Corp., North Tonawanda, N. Y.

MACHINES, SHEET METAL WORKING, NOTCHING, MANUAL

Engel Sheet Metal Equipment, Inc., St. Louis, Mo.
Fallsington Mfg. Co., Fallsington, Pa. (Also power)
Kidder Mfg. Co., Inc., J. F., Burlington, Vt.
Merchandising and Mfg. Associates, Inc., Lancaster, Pa.
Nord International Corp., Denville, N. J.
O'Neil-Irwin Mfg. Co., Lake City, Minn.
U. S. Tool & Die, Inc., Sharpsburg, Pa.
Whitney Metal Tool Co., Rockford, Ill.
Wilder Mfg. Co., Carmel, Calif.

MACHINES, SHEET METAL WORKING, NOTCHING, POWER

Harper Metal Products, Ltd., San Bruno, Calif.

MACHINES, SHEET METAL WORKING, PAN FORMING

Dreis & Krump Mfg. Co., Chicago, Ill.
Follansbee Steel Corp., Pittsburgh, Pa.
Roliton of America, Inc., Phoenix, Ariz.
Smith, R. E., Waukegan, Ill.

MACHINES, SHEET METAL WORKING, PITTSBURGH LOCK FORMING

Flagler Corp., The, Detroit, Mich.
Lockformer Co., Chicago, Ill.
Maplewood Machinery Co., Chicago, Ill.

MACHINES, SHEET METAL WORKING, PITTSBURGH LOCK OPENING

Birks Mfg. Co., Meriden, Conn.
Fallsington Mfg. Co., Fallsington, Pa.
Maplewood Machinery Co., Chicago, Ill.

MACHINES, SHEET METAL WORKING, PRESSES AND DIES

Airtherm Mfg. Co., St. Louis, Mo.
Baker Bros. Inc., Toledo, Ohio.
Bath Co., Cyril, Solon, O.
Bertsch & Co., Cambridge City, Ind.
Benchmaster Mfg. Co., Gardena, Calif.
Callahan Can Machine Co., Inc., Brooklyn, N. Y.
Cincinnati Shaper Co., Cincinnati, Ohio.
Clearing Machine Corp., Chicago, Ill.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Cleveland Punch & Shear Works Co., Cleveland, Ohio.
Davis & Son Machine Works, Los Angeles, Calif.
Diamond Machine Tool Co., Pico, Calif.
Doelger & Kirsten, Inc., Milwaukee, Wis.
Dreis & Krump Mfg. Co., Chicago, Ill.
Fallsington Mfg. Co., Fallsington, Pa.
Famco Machine Co., Kenosha, Wis.
Federal Machine & Welder Co., Warren, Ohio.
Hardco Products, Wantagh, N. Y.
Heidrich-Nourse Co., Los Angeles, Calif.
Henry & Wright Div. Emhart Mfg. Co., Hartford, Conn.
Highland Engineering Co., Santa Monica, Calif.
Johnson Machine & Press Corp., Elkhart, Ind.
Kenco Mfg. Co., Los Angeles, Calif.
Leslie Welding Co., Inc., Chicago, Ill.
Munton Mfg. Co., Franklin Park, Ill.
New Albany Machine Mfg. Co., New Albany, Ind.
Niagara Machine & Tool Works, Buffalo, N. Y.
O'Neil-Irwin Mfg. Co., Lake City, Minn.
Pacific Industrial Mfg. Co., Oakland, Calif.
Service Machine Co., Inc., Elizabeth, N. J.
Swaine Mfg. Co., Fred J., St. Louis, Mo.
Verson Allsteel Press Co., Chicago, Ill.
Wales-Strippit Corp., North Tonawanda, N. Y.

Ward Machinery Co., Chicago, Ill.
Whitney Metal Tool Co., Rockford, Ill.
Wiedemann Machine Co., Philadelphia, Pa.
Wilson, Inc., K. R., Arcade, N. Y.
Zeh & Hahnemann Co., Newark, N. J.

MACHINES, SHEET METAL WORKING, PUNCHES, POWER

Bath Co., Cyril, Solon, O.
Beatty Machine & Mfg. Co., Hammond, Ind.
Callahan Can Machine Co., Inc., Brooklyn, N. Y.
Cleveland Punch & Shear Works Co., Cleveland, Ohio.
Diamond Machine Tool Co., Pico, Calif.
Doelger & Kirsten, Inc., Milwaukee, Wis.
Excelsior Tool & Machine Co., East St. Louis, Ill.
Fallsington Mfg. Co., Fallsington, Pa.
Famco Machine Co., Kenosha, Wis.
Hendley & Whittemore Co., Beloit, Wis.
Henry & Wright Div. Emhart Mfg. Co., Hartford, Conn.
Highland Engineering Co., Santa Monica, Calif.
Kenco Mfg. Co., Los Angeles, Calif.
Kling Bros. Engineering Works, Chicago, Ill.
Marshalltown Mfg. Co., Marshalltown, Ia.
Maxant Button & Supply Co., Chicago, Ill.
Niagara Machine & Tool Works, Buffalo, N. Y.
O'Neil-Irwin Mfg. Co., Lake City, Minn.
Progressive Welder Sales Co., Detroit, Mich.
Rotex Punch Co., Inc., San Leandro, Calif.
Royersford Foundry & Machine Co., Royersford, Pa.
Swaine Mfg. Co., Fred J., St. Louis, Mo.
Verson Allsteel Press Co., Chicago, Ill.
Wales-Strippit Corp., North Tonawanda, N. Y.
Weiss & Co., H., New York, N. Y.
Whitney Metal Tool Co., Rockford, Ill.
Wiedemann Machine Co., Philadelphia, Pa.

MACHINES, SHEET METAL WORKING, ROD CUTTING

Beverly Shear Mfg. Co., Chicago, Ill.
O'Neil-Irwin Mfg. Co., Lake City, Minn.
Rainer & Campbell Co., Inc., Newark, N. J.

MACHINES, SHEET METAL WORKING, ROLL FORMING, POWER

For Mouldings and Shapes

Dahlstrom Machine Works, Chicago, Ill.
Flagler Corp., The, Detroit, Mich.
Kane & Roach, Inc., Syracuse, N. Y.
Lockformer Co., Chicago, Ill.
Maplewood Machinery Co., Chicago, Ill.
Peck, Stow & Wilcox Co., Southington, Conn.
Yoder Co., Cleveland, Ohio.

MACHINES, SHEET METAL WORKING, SAWS, BAND, SHEET METAL CUTTING

Bett-Marr Mfg. Co., Hopkins, Minn.
Delta Power Tool Div., Rockwell Mfg. Co., Pittsburgh, Pa.
Disston & Sons, Inc., Henry, Philadelphia, Pa.
DoALL Co., Des Plaines, Ill.
Grob Inc., Grafton, Wis.
Tannewitz Works, Grand Rapids, Mich.
Wells Mfg. Corp., Three Rivers, Mich.

MACHINES, SHEET METAL WORKING, SAWS, CIRCULAR, SHEET METAL CUTTING

Aluminum Enterprises, Inc., Detroit, Mich.

MACHINES, SHEET METAL WORKING, SAWS, HACK, POWER

Alpha Tool & Supply Co., Westwood, N. J.
Champion Blower & Forge Co., Lancaster, Pa.
Disston & Sons, Inc., Henry, Philadelphia, Pa.
DoALL Co., Des Plaines, Ill.
Merchandising & Mfg. Associates, Inc., Lancaster, Pa.
Milwaukee Electric Tool Corp., Milwaukee, Wis.
Racine Hydraulics & Machinery, Inc., Racine, Wis.
Robertson, F. L., Buffalo, N. Y.
Royersford Foundry & Machine Co., Royersford, Pa.
Skil Corporation, Chicago, Ill.
Thor Power Tool Co., Aurora, Ill.

MACHINES, SHEET METAL WORKING, SEAMING, HAND

Enderle, Inc., Ltd., Frank X., Los Angeles, Calif.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Whitney Metal Tool Co., Rockford, Ill.

MACHINES, SHEET METAL WORKING, SEAMING, POWER

Bliss Co., E. W., Detroit, Mich.
Brucker, Inc., M., Chicago, Ill.
Callahan Can Machine Co., Inc., Brooklyn, N. Y.
Hardco Products, Wantagh, N. Y.
Lockformer Co., Chicago, Ill.
Maplewood Machinery Co., Chicago, Ill.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Progressive Welder Sales Co., Detroit, Mich.
Stamco, Inc., New Bremen, Ohio.
Swaine Mfg. Co., Fred J., St. Louis, Mo.

MACHINES, SHEET METAL WORKING, SETTING DOWN, HAND

Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.

MACHINES, SHEET METAL WORKING, SETTING DOWN, POWER

Callahan Can Machine Co., Inc., Brooklyn, N. Y.
Fallsington Mfg. Co., Fallsington, Pa.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.

MACHINES, SHEET METAL WORKING, SHEARS, CIRCLE, HAND

Barth Mfg. Co., Milldale, Conn.
Berkroy Products Co., Burbank, Calif.
Beverly Shear Mfg. Co., Chicago, Ill.
Klenk's Aviation Snips, Wilmington, Del.
McCoy Products Co., Salt Lake City, Utah.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.

MACHINES, SHEET METAL WORKING, SHEARS, CIRCLE, POWER

Baker Bros., Inc., Toledo, Ohio
Beverly Shear Mfg. Co., Chicago, Ill.
H. A. Mfg. Co., York, Pa.
Kling Bros. Engineering Works, Chicago, Ill.
Libert Machine Co., Green Bay, Wis.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Wales-Strippit Corp., North Tonawanda, N. Y.
Whiting Corp., Harvey, Ill.

MACHINES, SHEET METAL WORKING, SHEARS, ELECTRIC, PORTABLE

Black & Decker Mfg. Co., Towson, Md.
Fenway Machine Sales Co., Inc., Philadelphia, Pa.
Merchandising & Manufacturing Associates, Inc., Lancaster, Pa.
(Electric or pneumatic drill attachment)
Millers Falls Co., Greenfield, Mass.
O'Neil-Irwin Mfg. Co., Lake City, Minn.
Skil Corporation, Chicago, Ill.
Stanley Electric Tool Div., Stanley Works, New Britain, Conn.
Wilder Mfg. Co., Inc., Carmel, Calif.

MACHINES, SHEET METAL WORKING, SHEARS, ROTARY, SLITTING, HAND

American Pullmax Co., Chicago, Ill.
Barth Mfg. Co., Milldale, Conn.
Berkroy Products Co., Burbank, Calif.
Champion Blower & Forge Co., Lancaster, Pa.
Engel Sheet Metal Equipment, Inc., St. Louis, Mo.
Marshalltown Mfg. Co., Marshalltown, Iowa.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Ward Machinery Co., Chicago, Ill.
Whitney Mfg. Co., W. A., Rockford, Ill.

MACHINES, SHEET METAL WORKING, SHEARS, ROTARY, SLITTING, POWER

Baker Bros., Inc., Toledo, Ohio.
Kling Bros. Engineering Works, Chicago, Ill.
Marshalltown Mfg. Co., Marshalltown, Iowa.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Stanat Mfg. Co., Long Island City, N. Y.
Stanley Electric Tool Div., Stanley Works, New Britain, Conn.
Wheelock Co., Geo. F., Birmingham, Ala.
Whiting Corp., Harvey, Ill.
Wilder Mfg. Co., Inc., Carmel, Calif.

MACHINES, SHEET METAL WORKING, SHEARS, SQUARING, MANUAL

Acme Equipment Co., Inc., Chicago, Ill.
Barth Mfg. Co., Milldale, Conn.
Bertsch & Co., Cambridge City, Ind.
Diamond Machine Tool Co., Pico, Calif.
Highland Engineering Co., Santa Monica, Calif.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Whitney Metal Tool Co., Rockford, Ill.
Wielands Incorporated, Pittsburgh, Pa.
Wysong & Miles Co., Greensboro, N. C.

MACHINES, SHEET METAL WORKING, SHEARS, SQUARING, POWER

Acme Equipment Co., Inc., Chicago, Ill.
Barth Mfg. Co., Milldale, Conn.
Bertsch & Co., Cambridge City, Ind.
Cincinnati Shaper Co., Cincinnati, Ohio.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Diamond Machine Tool Co., Pico, Calif.
Engel Sheet Metal Equipment, Inc., St. Louis, Mo.
Excelsior Tool & Machine Co., East St. Louis, Ill.
Famco Machine Co., Kenosha, Wis.
Johnson Machine & Press Corp., Elkhart, Ind.
Niagara Machine & Tool Works, Buffalo, N. Y.
O'Neil-Irwin Mfg. Co., Lake City, Minn.
Peck, Stow & Wilcox Co., Southington, Conn.
Stamco, Inc., New Bremen, Ohio.
Version Allsteel Press Co., Chicago, Ill.
Whitney Metal Tool Co., Rockford, Ill.
Wilder Mfg. Co., Inc., Carmel, Calif.
Wysong & Miles Co., Greensboro, N. C.

MACHINES, SHEET METAL WORKING, SLIP ROLL FORMING, HAND

Barth Mfg. Co., Milldale, Conn.
Berkroy Products Co., Burbank, Calif.
Bertsch & Co., Cambridge City, Ind.
Hendley & Whittemore Co., Beloit, Wis.
Niagara Machine & Tool Works, Buffalo, N. Y.
O'Neil-Irwin Mfg. Co., Lake City, Minn.
Peck, Stow & Wilcox Co., Southington, Conn.
San Angelo Foundry & Machine Co., San Angelo, Tex.
Wysong & Miles Co., Greensboro, N. C.

MACHINES, SHEET METAL WORKING, SLIP ROLL FORMING, POWER

Bertsch & Co., Cambridge City, Ind.
Hendley & Whittemore Co., Beloit, Wis.
Kling Bros. Engineering Works, Chicago, Ill.
Maplewood Machinery Co., Chicago, Ill.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Reed Equipment Div., The Webb Corp., Webb City, Mo.
San Angelo Foundry & Machine Co., San Angelo, Tex.
Wysong & Miles Co., Greensboro, N. C.

MACHINES, SHEET METAL WORKING, SLITTING, HAND

Barth Mfg. Co., Milldale, Conn.
Berkroy Products Co., Burbank, Calif.
Bertsch & Co., Cambridge City, Ind.
Beverly Shear Mfg. Co., Chicago, Ill.
Hendley & Whittemore Co., Beloit, Wis.
Kidder Mfg. Co., Inc., J. F., Burlington, Vt.

Niagara Machine & Tool Works, Buffalo, N. Y.
 Peck, Stow & Wilcox Co., Southington, Conn.
 Ward Machinery Co., Chicago, Ill.
 Whitney Mfg. Co., W. A., Rockford, Ill.
 Whitney Metal Tool Co., Rockford, Ill.

MACHINES, SHEET METAL WORKING, SLITTING, POWER

Bertsch & Co., Cambridge City, Ind.
 Callahan Can Machine Co., Inc., Brooklyn, N. Y.
 Dahlstrom Machine Works, Chicago, Ill.
 Engel Sheet Metal Equipment, Inc., St. Louis, Mo.
 Hendley & Whittemore Co., Beloit, Wis.
 Kane & Roach, Inc., Syracuse, N. Y.
 Libert Machine Co., Green Bay, Wis.
 Maplewood Machinery Co., Chicago, Ill.
 Niagara Machine & Tool Works, Buffalo, N. Y.
 Peck, Stow & Wilcox Co., Southington, Conn.
 St. Louis Tool Co., St. Louis, Mo.
 Stamco, Inc., New Bremen, Ohio.
 Stanat Mfg. Co., Long Island City, N. Y.
 Whiting Corp., Harvey, Ill.
 Wilder Mfg. Co., Inc., Carmel, Calif.
 Yoder Co., Cleveland, Ohio.

MACHINES, SHEET METAL WORKING, WIRING, HAND

Barth Mfg. Co., Milldale, Conn.
 Maplewood Machinery Co., Chicago, Ill.
 Niagara Machine & Tool Works, Buffalo, N. Y.
 Peck, Stow & Wilcox Co., Southington, Conn.

MACHINES, SHEET METAL WORKING, WIRING, POWER

Callahan Can Machine Co., Inc., Brooklyn, N. Y.
 Maplewood Machinery Co., Chicago, Ill.
 Niagara Machine & Tool Works, Buffalo, N. Y.
 Peck, Stow & Wilcox Co., Southington, Conn.

MALLETS, METAL WORKING

Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y. (Lead)
 Chase Brass & Copper Co., Inc., Waterbury, Conn. (Copper)
 Chicago Rawhide Mfg. Co., Chicago, Ill. (Rawhide)
 Division Lead Co., Summit, Ill. (Lead)
 Goodrich Co., B. F., Akron, Ohio. (Rubber)
 Greene, Tweed & Co., New York, N. Y. (Plastic, rawhide, composition, copper & babbitt)
 Lignum-Vitae Products Corp., Jersey City, N. J.
 Maplewood Machinery Co., Chicago, Ill.
 New Plastic Corp., Hollywood, Calif. (Plastic)
 Niagara Machine & Tool Works, Buffalo, N. Y. (Hickory)
 Republic Rubber Div. Lee Rubber & Tire Corp., Youngstown, Ohio. (Rubber)
 Southwest Mfg. Co., Santa Ana, Calif. (Plastic tipped)
 Stanley Electric Tools Div., The Stanley Works, New Britain, Conn. (Plastic)
 Stossel & Sons Co., Carl, Front Royal, Va. (Hickory & dogwood)

MARQUEES, PREFABRICATED

See Canopies, Prefabricated

MATS, EVAPORATIVE COOLER

Alton Mfg. Co., Dallas, Texas. (Aspenwood and Rubberized)
 International Metal Products Co., Phoenix, Ariz. (Chemically treated aspen fiber)
 Morey, Dan, Los Angeles, Calif. (Aspen)

METAL CEILINGS

See Ceilings, Metal
METAL HOSE

See Hose and Fittings, Metal

METAL SPRAY GUNS

See Guns, Spray, Metals

METAL STAMPINGS

See Stampings, Metal

METALS, PERFORATED, SHEET AND PLATE

Auer Register Co., Cleveland, O.
 Beckley Perforating Co., Garwood, N. J.

Belmont Smelting & Refining Wks., Inc., Brooklyn, N. Y.
 Chase Brass & Copper Co., Inc., Waterbury, Conn.
 Chicago Perforating Co., Chicago, Ill.
 Cross Engineering Co., Carbondale, Pa.
 Diamond Mfg. Co., Wyoming, Pa.
 Division Lead Co., Summit, Ill.
 Erdle Perforating Co., Rochester, N. Y.
 Harrington & King Perforating Co., Chicago, Ill.
 Harrison Sheet Steel Co., Chicago, Ill.
 Hendrick Mfg. Co., Carbondale, Pa.
 Johnston & Chapman Co., Chicago, Ill.
 Littleford Bros., Inc., Cincinnati, Ohio.
 Manhattan Perforated Metal Co., Inc., Long Island City, N. Y.
 Mundt & Sons, Charles, Jersey City, N. J.
 Nordmann-Duffke Co., Milwaukee, Wis.
 Penn Metal Co., Inc., New York, N. Y.
 Reynolds Metals Co., Louisville, Ky.
 Rigidized Metals Corp., Buffalo, N. Y.
 Standard Stamping & Perforating Co., Chicago, Ill.
 Superior Metal Fabricating Co., Niles, Ohio.
 Wheeling Corrugating Co., Wheeling, W. Va.

METERS, AIR VELOCITY, DIRECT READING

Anemostat Corp. of America, New York, N. Y.
 Bacharach Industrial Instrument Co., Pittsburgh, Pa.
 Detroit Air Conditioning Service Co., Nashville, Mich.
 Illinois Testing Laboratories, Inc., Chicago, Ill.
 Taylor Instrument Companies, Rochester, N. Y.

MONORAIL SYSTEMS

Truck, Trolley, Hoist, Accessories

American MonoRail Co., Cleveland, Ohio.
 Chicago Tramrail Co., Chicago, Ill.
 Cleveland Crane & Engineering Co., Wickliffe, Ohio.
 Loudon Machinery Co., Fairfield, Iowa.
 Philadelphia Tramrail Co., Philadelphia, Pa.
 Reading Crane & Hoist Corp., Reading, Pa.
 Richards-Wilcox Mfg. Co., Aurora, Ill.
 Round Bridgeport Chain & Mfg. Co., Bridgeport, Conn.
 Shepard Niles Crane & Hoist Corp., Montour Falls, N.Y.
 Webb Co., Jervis B., Detroit, Mich.
 Wright Hoist Div., American Chain & Cable Co., Inc., York, Pa.

MOTOR TRUCKS

See Trucks, Motor

MOTORS, ELECTRIC, DUCT, DAMPER, MODULATING OR PROPORTIONING

See Controls, Motor, Duct Damper, Modulating or Proportioning

MOTORS, ELECTRIC, DUCT, DAMPER, TWO POSITION

See Controls, Motor, Duct Damper, Two Position

MOTORS, ELECTRIC, FRACTIONAL H.P.

ACEC Electric Corp., New York, N. Y.
 Baldor Electric Co., St. Louis, Mo.
 Barber-Colman Co., Rockford, Ill.
 Bodine Electric Co., Chicago, Ill.
 Brown-Brockmeyer Co., Inc., Dayton, Ohio.
 Century Electric Co., St. Louis, Mo.
 Crise Controls Div., Acro Mfg. Co., Columbus, Ohio.
 Delco Appliance Div. General Motors Corp., Rochester, N. Y.
 Delco Products Div. General Motors Corp., Dayton, Ohio.
 Delta Power Tool Div., Rockwell Mfg. Co., Pittsburgh, Pa.
 Diehl Mfg. Co., Somerville, N. J.
 Eastern Air Devices, Inc., Dover, N. H.
 Electric Motor Corp., Div., Howard Industries, Inc., Racine, Wis.
 Emerson Electric Mfg. Co., St. Louis, Mo.
 Fasco Industries, Inc., Rochester, N. Y.
 Franklin Electric Co., Inc., Bluffton, Ind.
 General Die & Stamping Co., New York, N. Y.
 General Electric Co., Apparatus Sales Div., Schenectady, N. Y.
 HomeEase Products Div., Inc., Bogue Electric Mfg. Co., Paterson, N.J.
 Hoover Co., The., Electric Motor Div., North Plainfield, N. J.
 International Register Co., Chicago, Ill.
 Iron Fireman Mfg. Co., Cleveland, Ohio.
 Jack & Heintz, Inc., Cleveland, Ohio.
 Lamb Electric Co., Kent, Ohio.
 Leland Electric Co., Div. American Machine & Foundry Co., Dayton, Ohio.
 Lima Electric Motor Co., The, Lima, O.
 Marathon Electric Mfg. Corp., Wausau, Wis.

Marco Industries, Inc., DePew, N. Y.
 Master Appliance Mfg. Co., Racine, Wis.
 Master Electric Co., Dayton, Ohio
 Morey, Dan, Los Angeles, Calif.
 National Pneumatic Co., Inc., & Holtzer-Cabot Divs., Boston, Mass.
 Ohio Electric Mfg. Co., Cleveland, Ohio.
 Packard Electric Div., General Motors, Corp., Warren, Ohio.
 Peerless Electric Co., Warren, Ohio.
 Redmond Distributors, Inc., Newark, N. J.
 Reuland Elec. Co., Alhambra, Calif.
 Reynolds Electric Co., River Grove, Ill.
 Robbins & Myers, Inc., Springfield, Ohio.
 Rotor Corp., Dayton, Ohio.
 Small Motors, Inc., Chicago, Ill.
 Smith Corp., A. O., Permaglas Div., Kankakee, Ill.
 Sutton Corp., O. A., Wichita, Kans.
 Torq Electric Corp., Bedford, Ohio.
 U.S. Electrical Motors, Inc., Los Angeles, Calif.
 Universal Electric Western Co., Colorado Springs, Colo.
 Wagner Electric Corp., St. Louis, Mo.
 Westinghouse Electric Corp., Pittsburgh, Pa.
 Whirlaway Motors, Tippecanoe City, Ohio.

MOTORS, ELECTRIC, 1 H.P. AND OVER

ACEC Electric Corp., New York, N. Y.
 Allis-Chalmers Mfg. Co., Milwaukee, Wis.
 Allis Co., Louis, Milwaukee, Wis.
 Armor Electric Co., Erie, Pa.
 Baldor Electric Co., St. Louis, Mo.
 Brown-Brockmeyer Co., Inc., Dayton, Ohio.
 Century Electric Co., St. Louis, Mo.
 Crocker-Wheeler Div., Elliott Co., Ampere, N. J.
 Delco Products Div., General Motors Corp., Dayton, Ohio.
 Delta Power Tool Div., Rockwell Mfg. Co., Pittsburgh, Pa.
 Diehl Mfg. Co., Somerville, N. J.
 Electric Machinery Mfg. Co., Minneapolis, Minn.
 Electro Dynamic Div., General Dynamics Corp., Bayonne, N. J.
 Emerson Electric Mfg. Co., St. Louis, Mo.
 Fairbanks, Morse & Co., Chicago, Ill.
 General Electric Co., Apparatus Sales Div., Schenectady, N. Y.
 Hoover Co., The, Electric Motor Div., North Plainfield, N. J.
 Ideal Electric & Mfg. Co., Mansfield, Ohio.
 Imperial Electric Co., Akron, Ohio.
 Leland Electric Co., Div. American Machine & Foundry Co., Dayton, Ohio.
 Lima Electric Motor Co., The, Lima, O.
 Marathon Electric Mfg. Corp., Wausau, Wis.
 Marble-Card Electric Corp., Gladstone, Mich.
 Master Electric Co., Dayton, Ohio.
 Peerless Electric Co., Warren, Ohio.
 Philadelphia Gear Works, Inc., Philadelphia, Pa.
 Reliance Elec. & Engr. Co., Cleveland, Ohio.
 Reuland Electric Co., Alhambra, Calif.
 Robbins & Meyers, Inc., Springfield, Ohio.
 Smith Corp., A. O., Permaglas Div., Kankakee, Ill.
 Star-Kimble Motor Div., Michle Printing Press & Mfg. Co., Bloomfield, N.J.
 Sterling Electric Motors, Inc., Los Angeles, Calif.
 U. S. Electrical Motors, Inc., Los Angeles, Calif.
 Valley Electric Co., St. Louis, Mo.
 Wagner Electric Corp., St. Louis, Mo.
 Westinghouse Electric Corp., Pittsburgh, Pa.

MOULDINGS AND TRIM, ORNAMENTAL, CABINET AND CASING

Aluminum Co. of America, Pittsburgh, Pa.
 Aluminum Goods Mfg. Co., Manitowoc, Wis.
 American Insulator Corp., New Freedom, Pa.
 Brasco Mfg. Co., Harvey, Ill.
 Chase Brass & Copper Co., Inc., Waterbury, Conn.
 Dahlstrom Metal Door Co., Jamestown, N. Y.
 Detroit Moulding Div., L. A. Young Spring & Wire Corp., Detroit, Mich.
 Empire Door Co., Inc., New York, N. Y.
 Herron-Zimmers Moulding Co., Detroit, Mich.
 Jamestown Metal Corp., Jamestown, N. Y.
 Kawneer Co., Niles, Mich.
 Maysteel Products, Inc., Milwaukee, Wis.
 Miller & Doing, Brooklyn, N. Y.
 Pyramid Mouldings, Inc., Chicago, Ill.
 Revere Copper & Brass Inc., New York, N. Y.
 Rigidized Metals Corp., Buffalo, N. Y.
 Tennessee Fabricating Co., Memphis, Tenn.
 Werner Co., Inc., R. D., New York, N. Y.

MOULDINGS AND TRIM FOR SIDING AND SHINGLES

Allmetal Weatherstrip Co., Chicago, Ill. (Zinc)
 Appleton Supply Co., Inc., Appleton, Wis. (Aluminum, zinc)
 Ceco Steel Products Corp., Chicago, Ill.
 Edwards Mfg. Co., Inc., Cincinnati, Ohio.
 Inland Steel Products Co., Milwaukee, Wis. (Corners)
 Klauer Mfg. Co., Dubuque, Iowa.
 Matthiessen & Hegeler Zinc Co., LaSalle, Ill.
 New Delphos Mfg. Co., Delphos, Ohio. (Corners)
 Penn Supply & Metal Corp., Philadelphia, Pa.
 Quaker State Metals Co., Lancaster, Pa.
 Reynolds Metals Co., Louisville, Ky. (Aluminum)
 Royal-Apex Mfg. Co., Inc., Brooklyn, N. Y. (Bull nose corner bead)
 Sioux Steel Co., Sioux Falls, S. Dak.
 Werner Co., R. D., Inc., New York, N. Y.

NAILS, ALUMINUM

Aluminum Co. of America, Pittsburgh, Pa.
 Dickson Weatherproof Nail Co., Evanston, Ill.
 Downs-Smith Brass & Copper Co., Inc., New York, N. Y.
 Hassall, Inc., John, Brooklyn, N. Y.
 Independent Nail & Packing Co., Bridgewater, Mass.
 Kaiser Aluminum & Chemical Corp., Oakland, Calif.
 Maze Co., W. H., Peru, Ill.
 Nichols Wire & Aluminum Co., Davenport, Iowa.
 Quaker State Metals Co., Lancaster, Pa.
 Reynolds Metals Co., Louisville, Ky.

NAILS, BRASS OR COPPER

American Steel & Wire Div., U. S. Steel Corp., Cleveland, Ohio.
 Chase Brass & Copper Co., Inc., Waterbury, Conn.
 Columbia-Geneva Steel Div., U. S. Steel Corp., San Francisco, Calif.
 Conklin Brass & Copper Co., Inc., T. E., New York, N. Y.
 Copperweld Steel Co., Glassport, Pa.
 Downs-Smith Brass & Copper Co., Inc., New York, N. Y.
 Fanner Metals Products Co., Cleveland, O.
 Hassall, Inc., John, Brooklyn, N. Y.
 Hussey & Co., C. G., Pittsburgh, Pa.
 Independent Nail & Packing Co., Bridgewater, Mass.
 Maze Co., W. H., Peru, Ill.

NAILS, HARDENED MASONRY

American Steel & Wire Div., U. S. Steel Corp., Cleveland, Ohio.
 Dickson Weatherproof Nail Co., Evanston, Ill.
 Hillwood Mfg. Co., Cleveland, Ohio.
 Independent Nail & Packing Co., Bridgewater, Mass.
 Parker-Kalon Div., General American Transportation Corp., New York, N. Y.
 Tremont Nail Co., Wareham, Mass.
 Wheeling Corrugating Co., Wheeling, W. Va.
 Wood Steel Co., Alan, Conshohocken, Pa.

NAILS, ROOFING

American Steel & Wire Div., U. S. Steel Corp., Cleveland, Ohio.
 Berger Mfg. Div. of Republic Steel Corp., Canton, Ohio. (Galv.)
 Bethlehem Steel Co., Bethlehem, Pa.
 Ceco Steel Products Corp., Chicago, Ill. (Steel)
 Chase Brass & Copper Co., Inc., Waterbury, Conn. (Copper)
 Columbia-Geneva Steel Div., U. S. Steel Corp., San Francisco, Calif. (Steel)
 Conklin Brass & Copper Co., Inc., T. E., New York, N. Y. (Copper)
 Continental Steel Corp., Kokomo, Ind. (Steel)
 Copperweld Steel Co., Glassport, Pa. (Copper covered steel)
 Deniston Co., Chicago, Ill. (Steel & aluminum)
 Dickson Weatherproof Nail Co., Evanston, Ill. (Lead headed)
 Division Lead Co., Summit, Ill. (Lead)
 Downs-Smith Brass & Copper Co., Inc., New York, N. Y. (Copper)
 Hassall, Inc., John, Brooklyn, N. Y. (Copper)
 Hussey & Co., C. G., Pittsburgh, Pa. (Copper)
 Independent Nail & Packing Co., Bridgewater, Mass.
 Inland Steel Products Co., Milwaukee, Wis. (Steel wire)
 Jones & Laughlin Steel Corp., Pittsburgh, Pa.

Kaiser Aluminum & Chemical Corp., Oakland, Calif. (Aluminum)
 Maze Co., W. H., Peru, Ill.
 Pittsburgh Steel Co., Pittsburgh, Pa.
 Quaker State Metals Co., Lancaster, Pa. (Aluminum)
 Republic Steel Corp., Cleveland, Ohio. (Steel)
 Reynolds Metals Co., Louisville, Ky. (Aluminum)
 Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala.
 Wood Steel Co., Alan, Conshohocken, Pa. (Steel)

NAILS, SCREW, HARDENED

American Steel & Wire Div., U. S. Steel Corp., Cleveland, Ohio.
 Deniston Co., Chicago, Ill. (Pallet)
 Dickson Weatherproof Nail Co., Evanston, Ill.
 Hillwood Mfg. Co., Cleveland, Ohio. (Drive)
 Independent Nail & Packing Co., Bridgewater, Mass.
 Industrial Screw Co., Chicago, Ill.
 Maze Co., W. H., Peru, Ill.
 Parker-Kalon Div., General American Transportation Corp., New York, N. Y.
 Pittsburgh Steel Co., Pittsburgh, Pa.

NAILS, STAINLESS STEEL

American Steel & Wire Div., U. S. Steel Corp., Cleveland, Ohio.
 Dickson Weatherproof Nail Co., Evanston, Ill.
 Hassall, Inc., John, Brooklyn, N. Y.
 Independence Nail & Packing Co., Bridgewater, Mass.
 Maze Co., W. H., Peru, Ill.
 Star Stainless Screw Co., Paterson, N. J.
 Tremont Nail Co., Wareham, Mass.

NAILS, ZINC COATED

American Steel & Wire Div., U. S. Steel Corp., Cleveland, Ohio.
 Berger Mfg. Div. of Republic Steel Corp., Canton, Ohio.
 Bethlehem Steel Co., Bethlehem, Pa.
 Columbia Steel Co., Sub. U. S. Steel Corp., San Francisco, Calif.
 Continental Steel Corp., Kokomo, Ind.
 Dickson Weatherproof Nail Co., Evanston, Ill.
 Hassall, Inc., John, Brooklyn, N. Y.
 Independent Nail & Packing Co., Bridgewater, Mass.
 Jones & Laughlin Steel Corp., Pittsburgh, Pa.
 Maze Co., W. H., Peru, Ill.
 New Delphos Mfg. Co., Delphos, Ohio.
 Republic Steel Corp., Cleveland, Ohio.
 Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala.
 Tremont Nail Co., Wareham, Mass.
 Wheeling Corrugating Co., Wheeling, W. Va.

NIBBLERS

See Machines, Nibbling

NICKEL AND NICKEL ALLOY SHEETS

See Sheets, Metal, Special Metal

NIGHT AIR FANS

See Fans, Night Air Cooling

NOZZLES, OIL BURNER

Balloffet Nozzle Co., Inc., Guttenberg, N. J.
 Benjamin Air Rifle Co., St. Louis, Mo.
 Boston Machine Works Co., Lynn, Mass. (Also nozzle kit)
 Delavan Mfg. Co., West Des Moines, Iowa.
 Hago Products, Irvington, N. J.
 Harvey, Inc., Sid, Valley Stream, N. Y.
 Hasko Utilities Co., New York, N. Y.
 Monarch Mfg. Works, Inc., Philadelphia, Pa.
 Steinen Mfg. Co., Wm., Newark, N. J.

NOZZLES, SPRAY, WATER

American Cooling Tower Co., Kansas City, Mo.
 Benjamin Air Rifle Co., St. Louis, Mo.
 Binks Mfg. Co., Chicago, Ill.
 Buffalo Forge Co., Buffalo, N. Y.
 Chain Belt Co., Milwaukee, Wis.
 Clarage Fan Co., Kalamazoo, Mich.
 Delavan Mfg. Co., West Des Moines, Iowa.
 Eddington Metal Specialty Co., Eddington, Pa.
 Handelan Air Washer Co., Minneapolis, Minn.
 Harry Cooling Towers, Inc., New York, N. Y.
 Maid-O-Mist, Inc., Chicago, Ill.

Monarch Mfg. Works, Inc., Philadelphia, Pa.
 Plummer Spray Equipment Co., Napoleon, Ohio.
 Pritchard & Co., J. F., of California, Div. of J. F. Pritchard & Co., Kansas City, Mo.
 Rega Mfg. Co., Rochester, N. Y.
 Ross Sprinkler Co., Rosemead, Calif.
 Spray Engineering Co., Somerville, Mass.
 Spraying Systems Co., Bellwood, Ill.
 Steinen Mfg. Co., Wm., Newark, N. J.
 Supreme Electric Products Corp., Rochester, N. Y.
 Water Cooling Corp., New York, N. Y.
 Water Cooling Equipment Corp., St. Louis, Mo.
 Yarnall-Waring Co., Philadelphia, Pa.

NUTS, PRONGED

Fox Products Co., Philadelphia, Pa.

ODOR ADSORBERS

See Adsorbers, Odor

OIL BURNER CONTROLS

See Controls, Control Systems

OIL BURNER PARTS

Combustion Heads, Electrodes, Air Tubes, Etc.

A-P Controls Corp., Milwaukee, Wis. (Oil lifters, flow control valves)
 Airflame, Waukegan, Ill. (Combustion head)
 Auburn Spark Plug Co., Inc., Auburn, N. Y. (Electrodes)
 Bell Engineering & Supply Co., Three Rivers, Mich. (Flexible oil lines)
 Burnrite Valve Mfg. Corp., Mt. Vernon, N. Y.
 Crown Eng. Corp., Keyport, N. J. (Electrodes)
 Dielectric Products Corp., Inc., Jersey City, N. J. (Electrodes)
 Eddington Metal Specialty Co., Eddington, Pa. (Combustion heads, electrodes, air tubes)
 Electrical Components Co., Div. of National Ceramic Co., Trenton, N. J. (Electrodes)
 Fisher Governor Co., Marshalltown, Ia. (Liquid level controls)
 Gas & Oil Industry Laboratories, Inc., Irvington, N. J. (Valves)
 Guardian Products Corp., Michigan City, Ind.
 Harvey, Inc., Sid, Valley Stream, N. Y. (Electrodes, air tubes)
 Hayes Mfg. Co., Erie, Pa. (Valve fittings)
 Heetrliter Co., Newberg, Ore.
 Hold-Tite Valve Mfg. Co., New York, N. Y. (Line check valves)
 HomEase Products Div., Inc., Bogue Electric Mfg. Co., Paterson, N. J. (Electrodes)
 Hydrovalve Co., Brooklyn, N. Y. (Electrodes)
 Lord Mfg. Co., Erie, Pa.
 Lovejoy Flexible Coupling Co., Chicago, Ill. (Flexible shaft couplings)
 Modern Die & Machine Co., Boston, Mass. (Combustion head)
 Morse-Smith-Morse Co., The, Watertown, Mass. (Valves)
 Mueller Co., Decatur, Ill. (Valves)
 National Fuel Conservation Co., Inc., White Plains, N. Y. (Combustion head)
 Nu-Way Corp., The, Rock Island, Ill. (Nozzle and electrode assembly)
 Oilgas Generating Burners, Inc., New Castle, Pa. (Combustion head)
 Quiet Automatic Burner Corp., Newark, N. J. (Combustion head)
 Scully Signal Co., Melrose, Mass. (Repair Kit)
 Siemon Mfg. Co., Grandview, Kansas City, Mo.
 Webster Electric Co., Racine, Wis. (Nozzle valve)

OIL BURNERS

See Burners, Conversion, Oil

ORNAMENTS, SHEET METAL

See Mouldings and Trim, Ornamental

PACKAGED SYSTEMS

See Systems, Heating, Small Pipe

PAINT, ROOFING

American-Marietta Co., Chicago, Ill.
 Barrett Div., Allied Chemical & Dye Corp., New York, N. Y. (Pitch base)
 Blue Ridge Talc Co., Inc., Henry, Va.
 Cabot, Inc., Samuel, Boston, Mass.
 Calbar Paint & Varnish Co., Philadelphia, Pa.
 Carey Mfg. Co., Philip, Cincinnati, Ohio.
 Carter Paint Co., Liberty, Ind.
 Champion Bronze Powder & Paint Co., Chicago, Ill.

Cheesman-Elliott Co., Inc., Brooklyn, N. Y.
 Clinton Metallic Paint Co., Clinton, N. Y. (Red metallic)
 Continental Products Co., Euclid, Ohio.
 Debevoise Co., Brooklyn, N. Y.
 Devoe & Reynolds Co., Inc., New York, N. Y.
 du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.
 Flintkote Co., New York, N.Y.
 Hetzel Roofing Products Co., Newark, N. J.
 Horn Co., Inc., A. C., Long Island City, N. Y.
 Illinois Bronze Powder Co., Inc., Chicago, Ill.
 Inter-Coastal Paint Co., East St. Louis, Ill.
 Iowa Paint Mfg. Co., Inc., Des Moines, Iowa. (Asphalt)
 Koppers Co., Inc., Pittsburgh, Pa.
 Lastik Products Co., Inc., Pittsburgh, Pa. (Asphalt & fiber)
 Lehon Co., Bellwood, Ill.
 Luxco, Inc., Cleveland, Ohio.
 Lucas & Co., Inc., John, Philadelphia, Pa.
 Metropolitan Refining Co., Inc., Long Island City, N. Y.
 Midland Paint & Varnish Co., Cleveland, Ohio.
 Mortell Co., J. W., Kankakee, Ill.
 National Mfg. Corp., Tonawanda, N. Y.
 Nebel Mfg. Co., Cleveland, Ohio.
 North American Mogul Products Co., Cleveland, Ohio.
 Ohmlac Paint & Refining Co., Chicago, Ill. (Asphalt)
 Pabco Products, Inc., San Francisco, Calif.
 Pecora Paint Co., Philadelphia, Pa.
 Pittsburgh Plate Glass Co., Pittsburgh, Pa.
 Prestite Engineering Co., St. Louis, Mo.
 Reilly Tar & Chemical Corp., Indianapolis, Ind.
 Ruberoid Co., New York, N. Y.
 Rutland Fire Clay Co., Rutland, Vt. (Asphalt)
 S. O. S. Products Co., Inc., Brooklyn, N. Y.
 Sherwin-Williams Co., Cleveland, Ohio.
 Sipe & Co., James B., Pittsburgh, Pa.
 Sonneborn Sons, Inc., L., New York, N. Y.
 Southport Paint Co., Div. Wesson Oil & Snowdrift Co., Inc., Savannah, Ga.
 Tamm Industries Inc., Chicago, Ill.
 Thompson & Co., Oakmont, Pa.
 Toch Bros., Inc., Staten Island, N. Y.
 Tropical Paint Co., Cleveland, Ohio.
 Truscon Laboratories, Detroit, Mich.
 Whitlam Mfg. Co., J. C., Wadsworth, O.

PAINT, SHEET METAL

Aluminum, Finish Coat, Prime Coat, etc.

American-Marietta Co., Chicago, Ill. (Aluminum, prime & finish coat)
 Arco Co., The, Cleveland, O.
 Atlas Powder Co., North Chicago, Ill.
 Babbitt Chemical Specialties Co., New Bedford, Mass. (Aluminum, finish coat)
 Barreled Sunlight Paint Co., Providence, R.I. (Aluminum, finish coat)
 Barrett Div., Allied Chemical & Dye Corp., New York, N. Y.
 Blue Ridge Talc Co., Inc., Henry, Va.
 Cabot, Inc., Samuel, Boston, Mass. (Aluminum, metal protecting)
 Calbar Paint & Varnish Co., Philadelphia, Pa. (Aluminum, finish coat)
 Carboline Co., St. Louis, Mo. (Aluminum, finish coat & prime coat)
 Carey Co., Philip, Cincinnati, Ohio. (Aluminum)
 Carter Paint Co., Liberty, Ind.
 Champion Bronze Powder & Paint Co., Chicago, Ill. (Self-spraying bombs, all colors)
 Chase Products, Inc., Maywood, Ill.
 Cheesman-Elliott Co., Inc., Brooklyn, N. Y.
 Chemical Solvent Co., Birmingham, Ala.
 Constad Laboratories, New York, N. Y.
 Continental Products Co., Euclid, Ohio. (Aluminum, finish coat)
 Coopers Creek Chemical Corp., West Conshohocken, Pa. (Aluminum, finish coat)
 Cordo Chemical Corp., Norwalk, Conn. (Acid and alkali resistant coatings)
 Corrosite Corp., Brooklyn, N. Y. (Plastic)
 Debevoise Co., Brooklyn, N. Y. (Prime coat & finish coat)
 Devoe & Reynolds Co., Inc., New York, N. Y. (Aluminum, finish coat)
 du Pont de Nemours & Co., Inc., E. I., Wilmington, Del. (Aluminum, prime coat & finish coat)
 Flintkote Co., New York, N. Y. (Aluminum)
 Flood Co., Hudson, Ohio.
 Glidden Co., Cleveland, Ohio. (Aluminum finish coat, prime coat)
 Hague & Co., Alfred, Brooklyn, N. Y. (Aluminum, finish coat)
 Hetzel Roofing Products Co., Newark, N. J. (Aluminum, finish coat)

Hilo Varnish Corp., Everett, Mass. (Zinc chromate)
 Horn Co., Inc., A. C., Long Island City, N. Y. (Aluminum, finish coat)
 Illinois Bronze Powder Co., Inc., Chicago, Ill. (Aluminum)
 Industrial Metal Protectives, Dayton, O.
 Inter-Coastal Paint Co., East St. Louis, Ill. (Prime coat, finish coat & sound deadening)
 Iowa Paint Mfg. Co., Inc., Des Moines, Ia.
 Irvington Varnish & Insulator Div., Minnesota Mining & Mfg. Co., Irvington, N. J. (Finish coat)
 Koppers Co., Inc., Pittsburgh, Pa. (Aluminum, finish coat)
 Lastik Products Co., Inc., Pittsburgh, Pa. (Aluminum, prime coat & finish coat)
 Lucas & Co., Inc., John, Philadelphia, Pa.
 Markal Co., Chicago, Ill.
 Midland Paint & Varnish Co., Cleveland, Ohio. (Aluminum, finish coat)
 Miracle Adhesives Corp., New York, N. Y.
 Morris Paint & Varnish Co., Omaha, Nebr.
 National Engineering Products, Inc., Washington, D. C.
 National Lead Co., New York, N. Y. (Prime, finish coat)
 National Mfg. Corp., Tonawanda, N. Y. (Aluminum)
 Nebel Mfg. Co., Cleveland, Ohio. (Aluminum, finish coat)
 North American Mogul Products Co., Cleveland, Ohio. (Finish coat)
 O'Brien Corp., South Bend, Ind. (Aluminum, finish coat & prime coat)
 Ohmlac Paint & Refining Co., Chicago, Ill. (Finish coat)
 Okun Co., A. L., So. Ozone Park, N. Y. (Prime coat)
 Pabco Products Inc., San Francisco, Calif. (Aluminum, prime coat & finish coat)
 Patterson-Sargent Co., Cleveland, Ohio.
 Pecora Paint Co., Philadelphia, Pa. (Aluminum, finish coat).
 Petroleum Chemicals, Inc., Fresno, Calif.
 Pittsburgh Plate Glass Co., Pittsburgh, Pa. (Aluminum, finish coat)
 Prestite Engineering Co., St. Louis, Mo. (Aluminum)
 Quigley Co., Inc., New York, N. Y. (Aluminum, finish coat)
 Reilly Tar & Chemical Corp., Indianapolis, Ind.
 Reynolds Metals Co., Louisville, Ky. (Aluminum)
 Rust-Oleum Corp., Evanston, Ill. (Aluminum, prime coat, finish coat & rust preventive coatings)
 Rutland Fire Clay Co., Rutland, Vt. (Prime coat)
 S. O. S. Products Co., Inc., Brooklyn, N. Y. (Aluminum)
 Sherwin-Williams Co., Cleveland, Ohio. (Aluminum)
 Sipe & Co., James B., Pittsburgh, Pa. (Aluminum, prime coat & finish coat)
 Slip-On, Inc., New York, N. Y.
 Sonneborn Sons, Inc., L., New York, N. Y. (Aluminum, finish coat)
 Southport Paint Co., Div. Wesson Oil & Snowdrift Co., Inc., Savannah, Ga.
 Speco, Inc., Cleveland, Ohio (Aluminum)
 Tamm Industries, Inc., Chicago, Ill. (Finish coat)
 Thompson & Co., Oakmont, Pa. (Aluminum, finish coat)
 Toch Brothers, Inc., Staten Island, N. Y. (Finish coat)
 Tropical Paint Co., Cleveland, Ohio. (Aluminum, finish coat)
 Truscon Laboratories, Detroit, Mich. (Aluminum, prime coat & finish coat)
 Turco Products, Inc., Los Angeles, Calif.
 United Chromium, Inc., New York, N. Y. (Aluminum, prime coat, finish coat)
 United Gilsonite Laboratories, Scranton, Pa.
 United States Stoneware Co., New York, N. Y. (Aluminum, finish coat)
 Whitlam Mfg. Co., J. C., Wadsworth, O. (Aluminum, prime coat, finish coat)
 Wilbur & Williams Co., Brighton, Mass. (Aluminum, prime coat, finish coat)

PAINT SPRAY GUNS

See Guns, Spray, Paint

PANELS, CURTAIN WALL, PREFABRICATED

Celotex Corp., Chicago, Ill.
 Cemenstone Corp., Neville Island, Pittsburgh, Pa.
 Detroit Steel Products Co., Detroit, Mich.
 Erie Enameling Co., Erie, Pa.
 General Bronze Corp., Garden City, L.I., N.Y.
 Ingram-Richardson Co., Beaver Falls, Pa.
 Inland Steel Products Co., Milwaukee, Wis.
 Johns-Manville, New York, N. Y.
 Mahon Co., R. C., Detroit, Mich.
 Reynolds Metals Co., Louisville, Ky.
 Robertson Co., H.H., Pittsburgh, Pa.
 Steelcraft Mfg. Co., Rossmoyne, O.

PANELS, HEATING, ELECTRIC

Electriglas Corp., Bergenfield, N. J.

PANELS, PLASTIC, TRANSLUCENT MATERIAL

Alsynite Co. of America, San Diego, Calif.
American Cyanamid Co., New York, N. Y.
American Insulator Corp., New Freedom, Pa.
American Panel, Inc., Pittsburgh, Pa.
Campco Div., Chicago Molded Products Corp., Chicago, Ill.
Chemold Co., Santa Monica, Calif.
International Molded Plastics, Inc., Cleveland, O.
Libbey-Owens Ford Glass Co., Toledo, O.
Resolite Corp., Zelenople, Pa.
Soule Steel Co., San Francisco, Calif.

PANELS, WINDOW, AIR CONDITIONER

Russell Co., F. C., Cleveland, O.

PAPER, ASBESTOS

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Carey Mfg. Co., Philip, Cincinnati, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Johns-Manville, New York, N. Y.
Keasbey & Mattison Co., Ambler, Pa.
Norristown Magnesia & Asbestos Co., Norristown, Pa.
Ruberoid Co., New York, N. Y.
Sall Mountain Co., Hamilton, Ohio.
Standard Asbestos Mfg. Co., Chicago, Ill.
Wilson, Inc., Grant, Chicago, Ill.

PAPER AND MEMBRANE, FOR CRAWL SPACE AND SUBFILL

Richkraft Co., The, Chicago, Ill.

PARTS, REPAIR, FURNACE AND STOVE

Adams Co., Dubuque, Iowa.
Banner Repair Parts Co., Youngstown, Ohio.
Brauer Supply Co., A. G., St. Louis, Mo.
Central Furnace & Stove Repair Co., St. Louis, Mo.
Cincinnati Stamping & Furnace Co., Cincinnati, Ohio.
Eselgroth & Co., Newark, N. J.
Excelsior Stove & Mfg. Co., Quincy, Ill.
Faultless Heater Corp., Cleveland, Ohio.
Foote Foundry Co., I. B., Fredericktown, Ohio.
Kehm Co., Chicago, Ill.
Kramer Bros. Foundry Co., Dayton, Ohio.
Livingston, Inc., Marshall, Mich.
Mt. Vernon Furnace & Mfg. Co., Mt. Vernon, Ill.
National Foundry & Furnace Co., Dayton, Ohio.
Northwestern Stove Repair Co., Chicago, Ill.
Peerless Furnace and Foundry Co., Indianapolis, Ind.
Peninsular Stove Co., Detroit, Mich.
Pittsburgh Furnace Parts Co., Pittsburgh, Pa.
Portland Stove Foundry Co., Portland, Maine.
Smith Furnace Co., New Castle, Pa.

PASTE, ASBESTOS PAPER

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Clark Stek-O Corp., Rochester, N. Y.
Keasbey & Mattison Co., Ambler, Pa.
Norristown Magnesia & Asbestos Co., Norristown, Pa.
Paisley Products, Inc., New York, N. Y.
Rutland Fire Clay Co., Rutland, Vt.
Sall Mountain Co., Hamilton, Ohio.
Standard Asbestos Mfg. Co., Chicago, Ill.
Western Mineral Products Co., Minneapolis, Minn.
Wilson, Inc., Grant, Chicago, Ill.

PATTERNS AND BLUE PRINTS

Elbows, Skylights, Fittings, Etc.

Gray, G. L., New Haven, Conn.

PERFORATED METAL

See Metals, Perforated, Sheet and Plate

PERIMETER REGISTERS

See Diffusers, Air

PILLOW BLOCKS

See Bearings, Pillow Block

PILOT LIGHTS

See Controls, Pilots, Gas Burner

PIPE ANCHORS

See Anchors, Duct and Pipe

PIPE AND FITTINGS, CONDUCTOR

Ajax Furnace Fitting Co., Div. Cincinnati Sheet Metal & Roofing Co., Cincinnati, Ohio.
Alabama Metal Lath Co., Birmingham, Ala. (Steel & copper)
American Metal Products, Los Angeles, Calif. (Alum.)
Barnes Metal Products Co., Chicago, Ill.
Berger Bros. Co., Philadelphia, Pa.
Berger Mfg. Div. of Republic Steel Corp., Canton, Ohio. (Galvanized, stainless, copper)
Braden Mfg. Co., Inc., Terre Haute, Ind.
Carlton Products, Cleveland, Ohio. (Plastic)
Char-Gale Mfg. Co., Anoka, Minn.
Chase Brass & Copper Co., Inc., Waterbury, Conn. (Copper)
Dieckmann Co., Ferdinand, Cincinnati, O. (Aluminum, copper)
Downs-Smith Brass & Copper Co., New York, N. Y. (Copper)
Enderle, Inc., Ltd., Frank X., Los Angeles, Calif.
Frank & Fric, Cleveland, O.
Galvan Mfg. Co., New Albany, Ind.
Globe Iron Roofing & Corrugating Co., Newport, Ky.
Gray Metal Products, Inc., Rochester, N. Y.
Hussey & Co., C. G., Pittsburgh, Pa. (Copper)
Inland Steel Products Co., Milwaukee, Wis. (Copper & galv.)
Johns-Manville, New York, N. Y.
Klauser Mfg. Co., Dubuque, Iowa.
La Crosse Steel Roofing & Corrugating Co., La Crosse, Wis. (Galv. steel)
Lamb & Ritchie Co., Cambridge, Mass. (Galvanized & copper)
Levw, David, New York, N. Y.
Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif. (Galv.)
Lyon, Conklin & Co., Inc., Baltimore, Md.
Matthiessen & Hegeler Zinc Co., La Salle, Ill. (Zinc)
Maysteel Products, Inc., Milwaukee, Wis.
Miller & Doing, Brooklyn, N. Y.
Moncrief Lenoir Mfg. Co., Houston, Tex. (Steel, aluminum, copper)
New Delphos Mfg. Co., Delphos, Ohio. (Galv. steel)
Newport Steel Corp., Newport, Ky.
Northwest Metal Products, Inc., Seattle, Wash. (Galv. & copper)
Odyke, Inc., B. P., Philadelphia, Pa. (Copper, galv. & stainless steel)
Overly Mfg. Co., Greensburg, Pa.
Penn Supply & Metal Corp., Philadelphia, Pa. (Alum., copper, galv.)
Reeves Steel & Mfg. Co., Dover, Ohio. (Galv. steel)
Republic Steel Corp., Cleveland, O. (Steel)
Reynolds Metals Co., Louisville, Ky. (Aluminum)
Riggin Metal Products, Inc., Kankakee, Ill.
Rival Strap Corp., New York, N. Y.
Roofing & Supply Co., Chattanooga, Tenn. (Steel, copper)
Royal-Apex Mfg. Co., Inc., Brooklyn, N. Y.
St. Paul Corrugating Co., St. Paul, Minn. (Galv. steel)
Schechter Bros. Co., Philadelphia, Pa. (Galv. steel & copper)
Schoedinger, F. O., Columbus, Ohio. (Galv. stainless steel, & copper)
Sheet Metal Mfg. Co., Inc., Brooklyn, N. Y. (Aluminum, copper, galvanized steel & zinc)
Sioux Steel Co., Sioux Falls, S. Dak.
Souther Iron Co., E. E., St. Louis, Mo. (Galv.)
Standard Furnace Supply Co., Ltd., Omaha, Nebr. (Galvanized)
Thor Metal Products Co., Inc., Syracuse, N. Y. (Galv. & copper)
Tiffin Art Metal Co., Tiffin, Ohio. (Galv., copper, stainless steel, aluminum)
Wallace Co., William, Maltalbestos Div., Belmont, Calif. (Galvanized and copper)
Wheeling Corrugating Co., Wheeling, W. Va. (Galv. steel)
York Corrugating Co., York, Pa. (Copper & galv.)

PIPE AND FITTINGS, FURNACE
Pipe, Elbows, Tees, Collars, Cleanout Caps, Draw Bands, Reducers, Etc.
Acer & Whedon, Inc., Medina, N. Y.
Acme Furnace Fitting Co., Chicago, Ill.
Acme Mfg. Co., Philadelphia, Pa.
Adelta Mfg. Co., Inc., Philadelphia, Pa. (Galv. & black)
Aireflo Furnace Pipe Co., Brighton, Mich.
Ajax Furnace Fitting Co., Div. Cincinnati Sheet Metal & Roofing Co., Cincinnati, Ohio.
American Metal Products, Los Angeles, Calif.
Baum Heating, Inc., J. H., Youngstown, Ohio.
Berger Furnace Corp., Belle Vernon, Pa.

Bergstrom Mfg. Corp., Neenah, Wis.
 Bieler & Son, L., Long Island City, N. Y.
 Braden Mfg. Co., Inc., Terre Haute, Ind.
 Buckeye Furnace Pipe Co., Columbus, Ohio.
 Champion Furnace Pipe Co., Peoria, Ill.
 Char-Gale Mfg. Co., Anoka, Minn.
 Chicago Furnace Supply Co., Chicago, Ill.
 Cincinnati Stamping & Furnace Co., Cincinnati, Ohio.
 Clayton & Lambert Mfg. Co., Louisville, Ky.
 Connecticut State Furnace Co., Bridgeport, Conn.
 Corbman Bros., Inc., Philadelphia, Pa.
 Detroit Safety Furnace Pipe Co., Detroit, Mich.
 Enderle, Inc., Ltd., Frank X., Los Angeles, Calif.
 Excelsior Steel Furnace Co., Chicago, Ill.
 Famous Furnace Co., Cleveland, O.
 Gary Steel Products Co., Gary, Ind.
 Gerhardt Co., Inc., George T., Sausalito, Calif.
 Grand Island Furnace & Supply Co., Grand Island, Nebr.
 Gray Metal Products, Inc., Rochester, N. Y.
 Green Colonial Furnace Co., Des Moines, Iowa.
 Henry Furnace Co., Medina, Ohio.
 Home Furnace Co., Holland, Mich.
 Hugert Mfg. Co., Medina, Ohio.
 Inland Steel Products Co., Milwaukee, Wis.
 International Heater Co., Utica, N. Y.
 J & J Sheet Metal Co., Van Dyke, Mich.
 Jetronaire, Inc., Pittsburgh, Pa.
 Juniper Elbow Co., Inc., Middle Village, L.I., N.Y.
 Keith Furnace Co., Des Moines, Iowa.
 La Crosse Steel Roofing & Corrugating Co., La Crosse, Wis.
 Lennox Furnace Co., Marshalltown, Iowa.
 Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
 (Galv.)
 Lyman Co., H. B., Southampton, Hampshire Co., Mass.
 Lyon, Conklin & Co., Inc., Baltimore, Md.
 Made-Rite Co., Inc., Newport, Ky.
 Maple City Furnace Co., Monmouth, Ill.
 Marshall Furnace Co., Marshall, Mich.
 Metal Fabricators, Inc., Charlotte, N. C.
 Metalmen, Inc., Chicago, Ill.
 Meyer & Bro. Co., F., Peoria, Ill.
 Moncrief Furnace Co., Atlanta, Ga.
 Montag Stove & Furnace Works, Portland, Ore.
 Mueller Climatrol, Milwaukee, Wis.
 Northwest Metal Products, Inc., Seattle, Wash. (Black & galv.)
 Ohio Valley Hardware Co., Inc., Evansville, Ind.
 Olsen Mfg. Co., C. A., Elyria, Ohio.
 Peerless Furnace and Foundry Co., Indianapolis, Ind.
 Penn Supply & Metal Corp., Philadelphia, Pa.
 Perfection Furnace Pipe Co., Toledo, Ohio.
 Portland Stove Foundry Co., Portland, Maine.
 Premier Furnace Co., Dowagiac, Mich.
 Quality Heating Supply Co., Cincinnati, O.
 Quass & Sons, Chas. E., Canton, O.
 Ralph Mfg. Co., Inc., Wadsworth, O.
 Reeves Steel & Mfg. Co., Dover, Ohio.
 Riffin Metal Products, Kankakee, Ill.
 Rock Island Register Co., Rock Island, Ill.
 Roofing & Supply Co., Chattanooga, Tenn.
 Round Oak Co., Inc., Dowagiac, Mich.
 St. Clair Metal Products Co., Cleveland, Ohio.
 Schecter Bros. Co., Philadelphia, Pa.
 Schoedinger, F. O., Columbus, Ohio.
 Sheet Metal Mfg. Co., Inc., Brooklyn, N. Y.
 Sheet Metal Specialty Div., Follansbee Steel Corp., Follansbee, W. Va.
 Sioux Steel Co., Sioux Falls, S. D.
 Southbridge Roofing Co., Inc., Southbridge, Mass.
 Souther Iron Co., E. E., St. Louis, Mo.
 Standard Furnace Supply Co., Ltd., Omaha, Nebr.
 Stratton & Terstege Co., Louisville, Ky.
 Superior Metal Fabricating Co., Niles, O.
 Superior Products Co., Omaha, Nebr.
 Thor Metal Products, Inc., Syracuse, N. Y.
 Tierney Rotor Ventilator Co., Minneapolis, Minn.
 Tiffin Art Metal Co., Tiffin, O.
 Tri-State Heating, Inc., Detroit Lakes, Minn.
 Tri-State Heating Supply, Inc., Ft. Wayne, Ind.
 United States Register Co., Battle Creek, Mich.
 Viking Mfg. Corp., Cleveland, O.
 Waverly Heating Supply Co., Boston, Mass.
 Wheeling Corrugating Co., Wheeling, W. Va.
 Wheelock Co., Geo. F., The, Birmingham, Ala.
 Wilder Products Co., Springfield, Ohio.
 Williamson Heater Co., Cincinnati, Ohio.
 Youngtown Furnace Co., Youngtown, Ohio.

PIPE LOCK FORMERS

See Machines, Lock Forming

PITTSBURGH LOCK FORMING MACHINES

See Machines, Pittsburgh Lock Forming

PLASTIC TRANSLUCENT PANELS

See Panels, Plastic, Translucent Material

PLASTIC TUBING

See Tubing, Plastic

PLATES, ALLOY

Allegheny Ludlum Steel Corp., Pittsburgh, Pa. (Stainless steel)
 Aluminum Co. of America, Pittsburgh, Pa.
 American Brass Co., Waterbury, Conn. (Copper)
 Armco Steel Corp., Middletown, Ohio. (Stainless steel)
 Belmont Smelting & Refining Wks., Inc., Brooklyn, N. Y. (Zinc, lead)
 Bethlehem Steel Co., Bethlehem, Pa.
 Bridgeport Brass Co., Bridgeport, Conn.
 Chase Brass & Copper Co., Inc., Waterbury, Conn. (Copper and its alloys)
 Columbia-Geneva Steel Div., U. S. Steel Corp., San Francisco, Calif. (Steel)
 Division Lead Co., Summit, Ill. (Lead, tin, zinc)
 Dow Chemical Co., Midland, Mich. (Magnesium)
 Downs-Smith Brass & Copper Co., Inc., New York, N. Y. (Brass)
 Eastern Stainless Steel Corp., Baltimore, Md. (Stainless steel)
 Inland Steel Co., Chicago, Ill.
 International Nickel Co., Inc., New York, N. Y. (Nickel & nickel alloys)
 Jessop Steel Co., Washington, Pa. (Carbon, high speed)
 Kaiser Aluminum & Chemical Corp., Oakland, Calif. (Aluminum)
 Lukens Steel Co., Coatesville, Pa. (Nickel, chromium, copper, manganese, molybdenum, alloys)
 Monarch Alloys, Ravenna, Ohio.
 Reflectal Corp., Subsidiary Borg-Warner Corp., Chicago, Ill.
 Republic Steel Corp., Cleveland, O.
 Revere Copper & Brass Inc., New York, N. Y. (Copper & copper base)
 Reynolds Metals Co., Louisville, Ky. (Aluminum)
 Sharon Steel Corp., Sharon, Pa. (Stainless)
 United States Steel Corp., Pittsburgh, Pa.
 Youngtown Sheet & Tube Co., Youngtown, Ohio.

PLATES, STEEL

Armco Steel Corp., Middletown, Ohio.
 Bethlehem Steel Co., Bethlehem, Pa.
 Columbia-Geneva Steel Div., U. S. Steel Corp., San Francisco, Calif.
 Granite City Steel Co., Granite City, Ill.
 Inland Steel Co., Chicago, Ill.
 International Steel Co., Evansville, Ind.
 Jessop Steel Co., Washington, Pa.
 Jones & Laughlin Steel Corp., Pittsburgh, Pa.
 Lukens Steel Co., Coatesville, Pa.
 Reflectal Corp., Subsidiary Borg-Warner Corp., Chicago, Ill.
 Republic Steel Corp., Cleveland, O.
 Sharon Steel Corp., Sharon, Pa.
 Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala.
 United States Steel Corp., Pittsburgh, Pa.
 Wood Steel Co., Alan, Conshohocken, Pa.
 Youngtown Sheet & Tube Co., Youngtown, Ohio.

PLATES, WROUGHT IRON

Byers Co., A. M., Pittsburgh, Pa.

POLISHERS

See Buffers, Grinders, Polishers and Sanders

POWER SHEARS

See Machines, Sheet Metal, Shears

PRECIPITATORS, ELECTROSTATIC

See Filters, Air, Electrostatic

PREFABRICATED DUCTS

See Ducts, Prefabricated

PRESSES

See Machines, Sheet Metal, Presses

PROPELLER FANS

See Fans, Propeller Type

PROTECTIVE COATING

See Waterproofing, Coating Materials

PSYCHROMETERS, SLING AND HAND ASPIRATED

Bacharach Industrial Instrument Co., Pittsburgh, Pa.
Foxboro Co., Foxboro, Mass.
Friez Instrument Div., Bendix Aviation Corp., Baltimore, Md.
G. M. Mfg. Co., New York, N. Y.
General Scientific Equipment Co., Philadelphia, Pa.
H-B Instrument Co., Philadelphia, Pa.
Hill & Co., E. Vernon, Lake Geneva, Wis.
Johnson Service Co., Milwaukee, Wis.
Moeller Instrument Co., Richmond Hill, N. Y.
Palmer Thermometers, Inc., Norwood, Cincinnati, Ohio.
Philadelphia Thermometer Co., Philadelphia, Pa.
Precision Thermometer & Instrument Co., Philadelphia, Pa.
Taylor Instrument Companies, Rochester, N. Y.
Weksler Thermometer Corp., Freeport, N. Y.
Weston Electrical Instrument Corp., Newark, N. J.

PULLEYS, FAN AND MOTOR

Allis-Chalmers Mfg. Co., Milwaukee, Wis.
American Pulley Co., Philadelphia, Pa.
Browning Mfg. Co., Inc., Maysville, Ky.
Chicago Die Casting Co., Chicago, Ill.
Congress Drives, Div. Tann Corp., Detroit, Mich.
Dayton Rubber Co., Dayton, Ohio.
Dick Co., Inc., R. & J., Passaic, N. J.
Dodge Mfg. Corp., Mishawaka, Ind.
Equi-Dyne, Inc., Chicago, Ill.
Gates Rubber Co., Denver, Colo.
Goldens' Foundry & Machine Co., Columbus, Ga.
Jones Foundry & Machine Co., W. A., Chicago, Ill.
Lau Blower Co., Dayton, Ohio.
Lovejoy Flexible Coupling Co., Chicago, Ill.
Maurey Mfg. Corp., Chicago, Ill.
Mitchell Co., Inc., John E., Dallas, Texas.
Pyott Foundry & Machinery Co., Chicago, Ill.
Spun Steel Div., Automatic Steel Products, Inc., Canton, Ohio.
United States Register Co., Battle Creek, Mich.
Utility Fan Corp., Div. of Utility Appliance Corp., Los Angeles, Calif.
W. C. Products, Inc., Santa Monica, Calif.
Wood's Sons Co., T. B., Chambersburg, Pa.
Zatko Metal Products Co., Euclid, O.

PULLEYS, FURNACE CHAIN

Hart & Cooley Mfg. Co., Holland, Mich.
United States Register Co., Battle Creek, Mich.

PUMPS, FUEL, OIL BURNER

A-P Controls Corp., Milwaukee, Wis.
Barclay, Inc., Robt., Chicago, Ill.
Delo Screw Products Co., Delaware, O.
Flame-Master Co., Chicago, Ill.
Kraissl Co., Inc., Hackensack, N. J.
Roper Corp., Geo. D., Rockford, Ill.
Sundstrand Machine Tool Co., Rockford, Ill.
Tuthill Pump Co., Chicago, Ill.
Union Steam Pump Co., Battle Creek, Mich.
Viking Pump Co., Cedar Falls, Iowa.

PUMPS, RECIRCULATING, EVAPORATIVE COOLER

Beckett & Co., Thomas, Dallas, Texas.
Buffalo Forge Co., Buffalo, N. Y.
International Metal Products Co., Phoenix, Ariz.
Jabco Pump Co., Burbank, Calif.
Kraissl Co., Inc., Hackensack, N. J.
Little Giant Vaporizer Co., Oklahoma City, Okla.
Midwest Mfg. Co., Lawrence, Kans.
Morey, Dan, Los Angeles, Calif.
National Engineering & Mfg. Co., Sedalia, Mo.

Palmer Mfg. Corp., Phoenix, Ariz.
Robbins & Myers, Inc., Springfield, Ohio.
Southern Air Conditioning Mfg. Co., Fort Worth, Texas.
Union Steam Pump Co., Battle Creek, Mich.
Wright Mfg. Co., Phoenix, Ariz.
Yeomans Bros. Co., Melrose Park, Ill.

PUNCHES AND SHEARS COMBINED, LEVER OPERATED

Berkroy Products Co., Burbank, Calif.
Buffalo Forge Co., Buffalo, N. Y.
Cleveland Punch & Shear Works Co., Cleveland, Ohio.
Excelsior Tool & Machine Co., East St. Louis, Ill.
Heartley Machine & Tool Co., Toledo, Ohio.
Heinrich Tools, Inc., Racine, Wis.
Hendley & Whittemore Co., Beloit, Wis.
Kidder Mfg. Co., Inc., J. F., Burlington, Vt.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Rotex Punch Co., Inc., San Leandro, Calif.
Wielands Incorporated, Pittsburgh, Pa.

PUNCHES, BENCH

Berkroy Products Co., Burbank, Calif.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Chase Mfg. Co., Los Angeles, Calif.
Diamond Machine Tool Co., Pico, Calif.
Heartley Machine & Tool Co., Toledo, Ohio.
Heinrich Tools, Inc., Racine, Wis.
Hendley & Whittemore Co., Beloit, Wis.
Kidder Mfg. Co., J. F., Burlington, Vt.
Merchandising & Mfg. Associates, Inc., Lancaster, Pa.
Niagara Machine & Tool Works, Buffalo, N. Y.
O'Neil-Irwin Mfg. Co., Lake City, Minn.
Peck, Stow & Wilcox Co., Southington, Conn.
Rotex Punch Co., Inc., San Leandro, Calif.
Thor Tool & Die Co., San Leandro, Calif.
Whitney Mfg. Co., W. A., Rockford, Ill.
Whitney Metal Tool Co., Rockford, Ill.

PUNCHES, COMBINATION HAND AND BENCH

Champion Blower & Forge Co., Lancaster, Pa.
Heartley Machine & Tool Co., Toledo, Ohio.
Hendley & Whittemore Co., Beloit, Wis.
Niagara Machine & Tool Works, Buffalo, N. Y.
O'Neil-Irwin Mfg. Co., Lake City, Minn.
Peck, Stow & Wilcox Co., Southington, Conn.
Rotex Punch Co., Inc., San Leandro, Calif.
Whitney Mfg. Co., W. A., Rockford, Ill.
Whitney Metal Tool Co., Rockford, Ill.

PUNCHES, HAND

Allen, H. D., Los Angeles, Calif.
Berkroy Products Co., Burbank, Calif.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Cleveland Punch & Shear Works Co., Cleveland, Ohio.
Crescent Tool Co., Jamestown, N. Y.
Damascus Steel Products Corp., Rockford, Ill.
Diamond Machine Tool Co., Pico, Calif.
Excelsior Tool & Machine Co., East St. Louis, Ill.
Hendley & Whittemore Co., Beloit, Wis.
Ingels Elbow Machine Corp., Chicago, Ill.
Johnson, Inc., William, Newark, N. J.
Kidder Mfg. Co., J. F., Burlington, Vt.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Penn Tool Co., Philadelphia, Pa.
Reiner & Campbell Co., Inc., Newark, N. J.
Rotex Punch Co., Inc., San Leandro, Calif.
Snap-on Tools Corp., Kenosha, Wis.
Stanley Electric Tools Div., The Stanley Works, New Britain, Conn.
Thor Tool & Die Co., San Leandro, Calif.
Whitney Mfg. Co., W. A., Rockford, Ill.
Whitney Metal Tool Co., Rockford, Ill.

QUADRANTS, DAMPER

See Regulators, Duct Damper Sets; Hardware, Duct Fitting

RAIN CARRYING EQUIPMENT

See Gutters; Gutter Accessories; Pipe and Fittings, Conductor

RECONDITIONERS, FILTER, ELECTROSTATIC

American Air Filter Co., Inc., Louisville, Ky.
Research Cottrell, Inc., New York, N. Y.

RECORDERS, HUMIDITY, PORTABLE

Bristol Co., Waterbury, Conn.
Foxboro Co., Foxboro, Mass.
Friez Instrument Div., Bendix Aviation Corp., Baltimore, Md.
Leeds & Northrup Co., Philadelphia, Pa.
Manning, Maxwell & Moore, Inc., Stratford, Conn.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Moeller Instrument Co., Richmond Hill, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
Weksler Thermometer Corp., Freeport, N. Y.
Weston Electrical Instrument Corp., Newark, N. J.

RECORDERS, TEMPERATURE, PORTABLE

Bacharach Industrial Instrument Co., Pittsburgh, Pa.
Bailey Meter Co., Cleveland, Ohio.
Bristol Co., Waterbury, Conn.
Defender Instrument & Regulator Co., St. Louis, Mo.
Dickson Co., Chicago, Ill.
Foxboro Co., Foxboro, Mass.
Friez Instrument Div., Bendix Aviation Corp., Baltimore, Md.
Heat-Timer Corp., New York, N. Y.
Leeds & Northrup Co., Philadelphia, Pa.
Manning, Maxwell & Moore, Inc., Stratford, Conn.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Moeller Instrument Co., Richmond Hill, N. Y.
Palmer Thermometers, Inc., Cincinnati, Ohio.
Perco, Glendora, Calif.
Preferred Utilities Mfg. Corp., New York, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
United States Gauge Div., American Machine & Metals, Inc., Sellersville, Pa.
Weksler Thermometer Corp., Freeport, N. Y.
Weston Electrical Instrument Corp., Newark, N. J.

RECOVERERS, HEAT

Air Conditioning Engineering Co., Cambridge, Mass.
Autogas Co., Bellwood, Ill.
Cary Mfg. Co., Waupaca, Wis.
Gerhardt, W. F., Richmond, Va.
Hoskinson Free Heater Inc., Bellerose, L. I., N. Y.
Therm Oil Burner Co., Seattle, Wash.
Therm-O-Wheel, Inc., Far Rockaway, N. Y.

REELS, SHEET METAL WINDING

Dahlstrom Machine Works, Chicago, Ill.

REFRACATORIES

Amerform Corp., Philadelphia, Pa.
Armstrong Cork Co., Lancaster, Pa. (Insulating)
Babcock & Wilcox Co., Refractories Div., New York, N. Y.
Bird-Archer, Philadelphia, Pa.
Botfield Refractories Co., Philadelphia, Pa.
Chicago Fire Brick Co., Chicago, Ill.
Durex Refractories Co., Chicago, Ill.
Fireline Stove & Furnace Lining Co., Chicago, Ill. (For hearths and firepot linings)
Green Fire Brick Co., A. P., Mexico, Mo. (All types fire clay)
Insulating Castable Corp., River Rouge, Mich.
Iron-Hide Sales Co., Matawan, N.J.
Johns-Manville, New York, N. Y.
Kolb Refractories Co., Philadelphia, Pa.
Laclede-Christy Co., St. Louis, Mo. (Fire clay)
Monogram Products Co., Inc., Philadelphia, Pa.
Pyrolite Products Co., Cleveland, Ohio.
Quigley Co., Inc., New York, N. Y.
Ramtite Co., Div. S. Obermayer Co., Chicago, Ill.
Rehm, R., St. Albans, N. Y. (Radiant)
Refractory & Insulation Corp., New York, N. Y.
Rex Roto Corp., Detroit, Mich.
Robinson Insulation Co., Great Falls, Mont. (Vermiculite)
Rutland Fire Clay Co., Rutland, Vt. (Retort Cement)
S. O. S. Products Co., Inc., Brooklyn, N. Y.
Saurisen Cements Co., Pittsburgh, Pa.
Standard Fuel Engineering Co., Detroit, Mich.
United States Stoneware Co., New York, N. Y.
Walsh Refractories Corp., St. Louis, Mo.

REFRIGERANTS

Ansul Chemical Co., Refrigeration Div., Marinette, Wis. (Methyl chloride, sulphur dioxide)
Dow Chemical Co., The, Midland, Mich.

du Pont de Nemours & Co., Inc., E. I. Kinetic Chemicals Div., Wilmington, Del. ("Freon" fluorinated hydro carbon refrigerants)

Eston Chemicals Div., American Potash & Chemicals Corp., Los Angeles, Calif.
General Chemical Div., Allied Chemical & Dye Corp., New York, N. Y.
Solvay Sales Div., Allied Chemical & Dye Corp., New York, N. Y.

REFRIGERATING UNITS

See Condensing Units, Refrigerating

REGISTER SEALS

See Seals for Registers

REGISTERS, HEATING, VENTILATING AND AIR CONDITIONING

A & A Register Co., Cleveland, Ohio.
A-J Mfg. Co., Kansas City, Mo.
Air Conditioning Products Co., Detroit, Mich.
Air Control Products, Inc., Coopersville, Mich.
American Warming & Ventilating Co., Toledo, Ohio.
Auer Register Co., Cleveland, Ohio.
Barber-Colman Co., Rockford, Ill.
Berger Furnace Corp., Belle Vernon, Pa.
Brandes Co., Madison, Wis.
Carnes Co., W. R., Verona, Wis.
Char-Gale Mfg. Co., Anoka, Minn.
Controlair Mfg. Co., Los Angeles, Calif.
Diamond Mfg. Co., Wyoming, Pa.
Dole Valve Co., Chicago, Ill.
Empire Ventilation Equipment Co., Long Island City, N. Y.
Front Rank Furnace Co., Div. Liberty Foundry Co., St. Louis, Mo.
General Automatic Products Corp., Baltimore, Md.
General Electric Co., Air Conditioning Div., Bloomfield, N. J.
General Register Corp., Cedar Grove, N. J.
Gerwin Industries, Thermo-Base Div., Michigan City, Ind.
Harrington & King Perforating Co., Chicago, Ill.
Harrison Sheet Steel Co., Chicago, Ill.
Hart & Cooley Mfg. Co., Holland, Mich.
Hastings Air Conditioning Co., Inc., Hastings, Nebr.
Hendrick Mfg. Co., Carbondale, Pa.
Independent Register Co., Cleveland, Ohio.
Kalamazoo Furnace & Appliance Mfg. Co., Kalamazoo, Mich.
Krueger Air Conditioning Co., Tucson, Ariz.
Lima Register Co., Lima, Ohio.
Louvre Corp., Union, N.J.
Metal Carrier Corp., Grand Rapids, Mich.
Midco Register Corp., St. Paul, Minn.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Mueller Climatrol, Milwaukee, Wis.
National Grille & Register Co., Cleveland, O.
Patco Mfg. Co., Philadelphia, Pa.
Register & Grille Mfg. Co., Inc., Brooklyn, N. Y.
Roberts Co., S. R., Marshall, Mich.
Rock Island Register Co., Rock Island, Ill.
Smith Co., J. B., Philadelphia, Pa.
Standard Stamping & Perforating Co., Chicago, Ill.
Stewart Mfg. Co., Cedar Grove, N. J.
Titus, Inc., Waterloo, Iowa.
Titus Mfg. Corp., Waterloo, Iowa.
Tuttle & Bailey, Inc., New Britain, Conn.
United States Register Co., Battle Creek, Mich.
Vectaire Mfg. Co., Melrose, Mass.
Viking Mfg. Corp., Cleveland, O.
Waterloo Register Co., Inc., Waterloo, Ia.
Wilde Register & Grille Co., Detroit, Mich.
Young Regulator Co., Cleveland, Ohio.

REGULATORS, DUCT DAMPER SETS

Acme Mfg. Co., Philadelphia, Pa.
Adams Co., Dubuque, Iowa.
Air Control Products, Inc., Coopersville, Mich.
Barber-Colman Co., Rockford, Ill.
Cole-Sewell Engineering Co., St. Paul, Minn.
Connecticut State Furnace Co., Bridgeport, Conn.
Controlair Mfg. Co., Los Angeles, Calif.
Duro-Dyne Corp., New Hyde Park, L.I., N. Y.
Elgen Mfg. Corp., Long Island City, N. Y.
Gerrett Corp., M. A., Milwaukee, Wis.
Hart & Cooley Mfg. Co., Holland, Mich.
Kerentoff, G. L., Cincinnati, Ohio.
Malm Mfg. Co., St. Paul, Minn.

Martens & Stormoen, West Quincy, Mass.
 Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Perfex Corp., Milwaukee, Wis.
 Severson Mfg. & Supply Co., Milwaukee, Wis.
 Thermal Agency, Houston, Tex.
 United States Register Co., Battle Creek, Mich.
 Young Regulator Co., Cleveland, Ohio.

REGULATORS, FURNACE DRAFT, MECHANICAL

Atlas Valve Co., Newark, N. J.
 Defender Instrument & Regulator Co., St. Louis, Mo.
 Hart & Cooley Mfg. Co., Holland, Mich.
 Hays Corp., Michigan City, Ind.
 Little Janitor Furnace Clock Co., New York, N. Y.
 National Fuel Conservation Co., Inc., White Plains, N. Y.
 Quickdraft Co., Div. Herring-Hall-Marvin Safe Co., Hamilton, O.

RELAYS, ELECTRICAL

See Controls, Relay

REMOVER, SOOT

Ampion Corp., Long Island City, N. Y.
 Coughlan Co., G. N., West Orange, N. J.
 General Filters, Inc., Novi, Mich.
 Harvey, Inc., Sid. Valley Stream, N. Y.
 Hercules Chemical Co., Inc., New York, N. Y.
 Madden Corp., The, Chicago, Ill.
 Magnus Chemical Co., Garwood, N. J.
 Marine Electrolysis Eliminator Co., Seattle, Wash.
 Metropolitan Refining Co., Inc., Long Island City, N. Y.
 Miller Products Co., Lansing, Mich.
 Norman Chemical Co., St. Paul, Minn.
 North American Mogul Products Co., Cleveland, Ohio.
 Red Wing Oil Burner Co., Inc., Medford, Mass.
 Saginaw Salt Products Co., Saginaw, Mich.
 S.O.S. Products Co., Inc., Brooklyn, N. Y.
 Tamm Industries Inc., Chicago, Ill.

RETURN AIR FACES AND INTAKES

See Faces, Return Air

RIDGE ROLL, SHEET METAL

Alabama Metal Lath Co., Birmingham, Ala. (Steel)
 American Steel Band Co., Pittsburgh, Pa.
 American Steel & Wire Div., U. S. Steel Corp., Cleveland, Ohio.
 Barnes Metal Products Co., Chicago, Ill.
 Berger Bros. Co., Philadelphia, Pa.
 Berger Mfg. Div. of Republic Steel Corp., Canton, Ohio. (Galv. stainless steel & copper)
 Bethlehem Steel Co., Bethlehem, Pa.
 Ceco Steel Products Corp., Chicago, Ill. (Galvanized)
 Chase Brass & Copper Co., Inc., Waterbury, Conn. (Copper)
 Downs-Smith Brass & Copper Co., Inc., New York, N. Y. (Copper)
 Hussey & Co., C. G., Pittsburgh, Pa. (Copper)
 Inland Steel Products Co., Milwaukee, Wis. (Galv. & copper)
 Kaiser Aluminum & Chemical Corp., Oakland, Calif. (Aluminum)
 Klauer Mfg. Co., Dubuque, Iowa.
 La Crosse Steel Roofing & Corrugating Co., La Crosse, Wis.
 Lyon, Conklin & Co., Inc., Baltimore, Md.
 Matthiessen & Hegeler Zinc Co., La Salle, Ill. (Zinc)
 New Delphos Mfg. Co., Delphos, Ohio. (Galv. steel)
 Newport Rolling Mill Co., Newport, Ky.
 Nichols Wire & Aluminum Co., Davenport, Iowa. (Aluminum)
 Northwest Metal Products, Inc., Seattle, Wash. (Galv. & copper)
 Plasteel Products Co., Washington, Pa.
 Quaker State Metals Co., Lancaster, Pa. (Aluminum)
 Reeves Steel & Mfg. Co., Dover, Ohio. (Galv. steel)
 Republic Steel Corp., Cleveland, O.
 Reynolds Metals Co., Louisville, Ky. (Aluminum)
 Riggins Metal Products, Kankakee, Ill.
 St. Paul Corrugating Co., St. Paul, Minn. (Galv. steel)
 Schoedinger, F. O., Columbus, Ohio. (Galv. & stainless steel, & copper)
 Sheet Metal Mfg. Co., Inc., Brooklyn, N. Y. (Copper, aluminum, & steel)
 Sioux Steel Co., Sioux City, S. D. (Galv. & copper)
 Southbridge Roofing Co., Inc., Southbridge, Mass.
 Souther Iron Co., E. E., St. Louis, Mo. (Galv.)

Southern States Iron Roofing Co., Savannah, Ga. (Aluminum & galvanized steel)
 Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala.
 Tiffin Art Metal Co., Tiffin, Ohio. (Galv. copper, stainless steel, aluminum)
 Van Noorden Co., E., Boston, Mass.
 Wallace Co., William, Metalbestos Div., Belmont, Calif. (Galvanized)
 Wheeling Corrugating Co., Wheeling, W. Va. (Galv. steel)

RIDGE VENTILATORS

See Ventilators, Roof

RIVETS, ALLOY

Bethlehem Steel Co., Bethlehem, Pa.
 Clark Bros. Bolt Co., Milldale, Conn.
 du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.
 General Plate Div., Metals & Controls Corp., Attleboro, Mass. (Silver)
 Harper Co., H. M., Morton Grove, Ill.
 Hassall, Inc., John, Brooklyn, N. Y.
 Huck Mfg. Co., Detroit, Mich. (Blind)
 Republic Steel Corp., Cleveland, Ohio.
 Townsend Co., New Brighton, Pa.
 Townsend Co., Cherry Rivet Div., Santa Ana, Calif. (Blind)
 Tubular Rivet & Stud Co., Wollaston (Quincy) Mass.

RIVETS, ALUMINUM

Aluminum Co., of America, Pittsburgh, Pa.
 Chicago Rivet & Machine Co., Bellwood, Ill.
 Downs-Smith Brass & Copper Co., Inc., New York, N. Y.
 du Pont de Nemours & Co., Inc., E. I., Wilmington, Del. (Explosive)
 Goodrich Co., B. F., Akron, Ohio. (Blind)
 Harper Co., H. M., Morton Grove, Ill.
 Hassall, Inc., John, Brooklyn, N. Y.
 Huck Mfg. Co., Detroit, Mich. (Blind)
 Reynolds Metals Co., Louisville, Ky.
 Southco Div., South Chester Corp., Philadelphia, Pa. (Blind)
 Townsend Co., Cherry Rivet Div., Santa Ana, Calif. (Blind)
 Tubular Rivet & Stud Co., Wollaston (Quincy) Mass.

RIVETS, BRASS OR COPPER

Chase Brass & Copper Co., Inc., Waterbury, Conn.
 Chicago Rivet & Machine Co., Bellwood, Ill.
 Conklin Brass & Copper Co., Inc., T. E., New York, N. Y.
 Downs-Smith Brass & Copper Co., Inc., New York, N. Y.
 du Pont de Nemours & Co., Inc., E. I., Wilmington, Del. (Explosive)
 Goodrich Co., B. F., Akron, Ohio. (Blind-Brass)
 Harper Co., H. M., Morton Grove, Ill.
 Hassall, Inc., John, Brooklyn, N. Y.
 Huck Mfg. Co., Detroit, Mich. (Blind)
 Hussey & Co., C. G., Pittsburgh, Pa. (Copper)
 Taunton & Co., Inc., John H., New York, N. Y.
 Townsend Co., New Brighton, Pa.
 Tubular Rivet & Stud Co., Wollaston (Quincy) Mass.

RIVETS, IRON

Chicago Rivet & Machine Co., Bellwood, Ill.
 Hassall Inc., John, Brooklyn, N. Y.
 Huck Mfg. Co., Detroit, Mich.
 Townsend Co., New Brighton, Pa.

RIVETS, STEEL

Bethlehem Steel Co., Bethlehem, Pa.
 Chase Brass & Copper Co., Inc., Waterbury, Conn.
 Cherry Rivet Co., Los Angeles, Calif. (Blind)
 Chicago Rivet & Machine Co., Bellwood, Ill.
 Clark Bros. Bolt Co., Milldale, Conn.
 Goodrich Co., B. F., Akron, Ohio.
 Hassall Inc., John, Brooklyn, N. Y.
 Huck Mfg. Co., Detroit, Mich. (Blind)
 Republic Steel Corp., Cleveland, Ohio.
 Townsend Co., New Brighton, Pa.
 Townsend Co., Cherry Rivet Div., Santa Ana, Calif. (Blind)
 Tubular Rivet & Stud Co., Wollaston (Quincy) Mass.

ROD, WELDING

Air Reduction Sales Co., New York, N. Y.
 All-State Welding Alloys Co., Inc., White Plains, N. Y.
 American Brass Co., New York, N. Y.
 American Steel & Wire Div., U. S. Steel Corp., Cleveland, Ohio.
 Arcos Corp., Philadelphia, Pa. (Stainless steel)
 Bridgeport Brass Co., Bridgeport, Conn.
 Chase Brass & Copper Co., Inc., Waterbury, Conn.

Chemalloy Electronics, Inc., Santee, Calif.
 Crucible Steel Co., Pittsburgh, Pa. (Stainless steel)
 Dow Chemical Co., Midland, Mich. (Magnesium)
 Eutectic Welding Alloys Corp., Flushing, N. Y.
 Harnischfeger Corp., Milwaukee, Wis.
 Hobart Bros. Co., Troy, Ohio.
 International Nickel Co., Inc., New York, N. Y. (Nickel & nickel alloys)
 Lincoln Electric Co., Cleveland, O.
 Linde Air Products Co., New York, N. Y.
 Liquid Carbonic Corp., Industrial Gas Div., Chicago, Ill.
 Marquette Mfg. Co., Inc., Minneapolis, Minn.
 Metal & Thermit Corp., New York, N. Y.
 Miracle Rod Co. of Illinois, Chicago, Ill.
 Modern Engineering Co., St. Louis, Mo.
 Mueller Brass Co., Port Huron, Mich.
 National Cylinder Gas Co., Chicago, Ill.
 Page Steel & Wire Div., American Chain & Cable Co., Inc., Monessen, Pa.
 Perco, Glendora, Calif.
 Revere Copper & Brass Inc., New York, N.Y.
 Sight Feed Generator Co., West Alexandria, Ohio.
 Smith Corp., A. O., Permaglas Div., Kankakee, Ill.
 Tennessee Fabricating Co., Memphis, Tenn.
 United Wire & Supply Corp., Providence, R. I.
 Wall Colmonoy Corp., Detroit, Mich.
 Westinghouse Electric Corp., Pittsburgh, Pa.
 Youngstown Sheet & Tube Co., Youngstown, Ohio.

ROOF CEMENT

See Cement, Roof

ROOF DECKING

See Decking, Roof

ROOF TRIM (MOULDINGS), STEEL, EAVES AND RAKES

Alabama Metal Lath Co., Birmingham, Ala.
 Appleton Supply Co., Inc., Appleton, Wis.
 Inland Steel Products Co., Milwaukee, Wis.
 New Delphos Mfg. Co., Delphos, O.
 Northwest Metal Products, Inc., Seattle, Wash.
 Obdyke, Inc., B. P., Philadelphia, Pa.
 Penn Supply & Metal Corp., Philadelphia, Pa.
 Quaker State Metals Co., Lancaster, Pa.
 Republic Steel Corp., Cleveland, O.
 Reynolds Metals Co., Louisville, Ky.
 Sheet Metal Mfg. Co., Inc., Brooklyn, N. Y.
 Sioux Steel Co., Sioux Falls, S. D.
 Southern States Iron Roofing Co., Savannah, Ga.
 Wheeling Corrugating Co., Wheeling, W. Va.

ROOF VENTILATORS

See Ventilators, Roof

ROOFING, BUILT-UP

See Felt, Roofing

ROOFING MACHINES

See Machines, Sheet Metal Working, Pan Forming

ROOFING, SHEET METAL, ALUMINUM

Aluminum Co., of America, Pittsburgh, Pa.
 Kaiser Aluminum & Chemical Corp., Oakland, Calif.
 Nichols Wire & Aluminum Co., Davenport, Iowa.
 Overly Mfg. Co., Greensburg, Pa.
 Penn Supply & Metal Corp., Philadelphia, Pa.
 Quaker State Metals Co., Lancaster, Pa.
 Ralph Mfg. Co., Inc., Wadsworth, Ohio.
 Reynolds Metals Co., Louisville, Ky.
 Southern States Iron Roofing Co., Savannah, Ga.
 Tiffin Art Metal Co., Tiffin, Ohio.

ROOFING, SHEET METAL, COPPER

American Brass Co., Waterbury, Conn.
 Braden Mfg. Co., Inc., Terre Haute, Ind.
 Bridgeport Brass Co., Bridgeport, Conn.
 Chase Brass & Copper Co., Inc., Waterbury, Conn.
 Conklin Brass & Copper Co., Inc., T. E., New York, N. Y.
 Downs-Smith Brass & Copper Co., Inc., New York, N.Y.
 Hussey & Co., C. G., Pittsburgh, Pa.
 Klauer Mfg. Co., Dubuque, Iowa.
 Overly Mfg. Co., Greensburg, Pa.

Perkinson, William J., Chicago, Ill.
 Revere Copper & Brass Inc., New York, N.Y.

ROOFING, SHEET METAL, LEAD

Alpha Metals, Inc., Jersey City, N. J.
 Chase Brass & Copper Co., Inc., Waterbury, Conn. (Coated copper)
 Division Lead Co., Summit, Ill.
 Downs-Smith Brass & Copper Co., Inc., New York, N. Y.
 Empire Metal Co., Syracuse, N. Y.
 Federated Metals Div. American Smelting & Refining Co., New York, N. Y.
 Flemm Lead Co., Inc., Long Island City, N. Y.
 Illinois Zinc Co., Chicago, Ill.
 Kirk & Son, Morris P., Los Angeles, Calif. (copper, galv. iron)
 National Lead Co., New York, N. Y.
 Northwest Lead Co., Seattle, Wash.
 Standard Rolling Mills, Inc., Brooklyn, N. Y.

ROOFING, SHEET METAL, MONEL

International Nickel Co., Inc., New York, N. Y.
 Overly Mfg. Co., Greensburg, Pa.

ROOFING, SHEET METAL, STEEL, GALVANIZED

Ajax Furnace Fitting Co., Div. Cincinnati Sheet Metal & Roofing Co., Cincinnati, Ohio.
 American Steel & Wire Div., U. S. Steel Corp., Cleveland, Ohio.
 Armco Steel Corp., Middletown, Ohio.
 Berger Mfg. Div. of Republic Steel Corp., Canton, Ohio.
 Bethlehem Steel Co., Bethlehem, Pa.
 Braden Mfg. Co., Inc., Terre Haute, Ind.
 Ceco Steel Products Corp., Chicago, Ill.
 Columbia-Geneva Steel Div., U. S. Steel Corp., San Francisco, Calif.
 Continental Steel Corp., Kokomo, Ind.
 Detroit Steel Products Co., Detroit, Mich.
 Goldsmith Metal Lath Co., Cincinnati, Ohio.
 Granite City Steel Co., Granite City, Ill.
 Inland Steel Co., Chicago, Ill.
 Inland Steel Products Co., Milwaukee, Wis.
 International Steel Co., Evansville, Ind.
 Klauer Mfg. Co., Dubuque, Iowa.
 La Crosse Steel Roofing & Corrugating Co., La Crosse, Wis.
 Lyon, Conklin & Co., Inc., Baltimore, Md.
 New Delphos Mfg. Co., Delphos, Ohio.
 Newport Steel Corp., Newport, Ky.
 Overly Mfg. Co., Greensburg, Pa.
 Penn Supply & Metal Corp., Philadelphia, Pa.
 Perkinson, William J., Chicago, Ill.
 Plasteel Products Corp., Washington, Pa.
 Quaker State Metals Co., Lancaster, Pa.
 Reeves Steel & Mfg. Co., Dover, Ohio.
 Republic Steel Corp., Cleveland, Ohio.
 Roofing & Supply Co., Chattanooga, Tenn.
 Sioux Steel Co., Sioux Falls, S. D.
 St. Paul Corrugating Co., St. Paul, Minn.
 Souther Iron Co., E. E., St. Louis, Mo.
 Southern States Iron Roofing Co., Savannah, Ga.
 Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala.
 Tiffin Art Metal Co., Tiffin, Ohio.
 Truscon Steel Div., Republic Steel Corp., Youngstown, O.
 United States Steel Corp., Pittsburgh, Pa.
 Wheeling Corrugating Co., Wheeling, W. Va.

ROOFING, SHEET METAL, STEEL, PROTECTIVE COATED

Airtherm Mfg. Co., St. Louis, Mo.
 American Steel Band Co., Pittsburgh, Pa.
 Plasteel Products Corp., Washington, Pa.
 Robertson Co., H. H., Pittsburgh, Pa.

ROOFING, SHEET METAL, STEEL, TERNE PLATE

Berger Mfg. Div. of Republic Steel Corp., Canton, Ohio.
 Bethlehem Steel Co., Bethlehem, Pa.
 Fingles Co., Baltimore, Md.
 Inland Steel Products Co., Milwaukee, Wis.
 Klauer Mfg. Co., Dubuque, Iowa.
 Lyon, Conklin & Co., Inc., Baltimore, Md.
 New Delphos Mfg. Co., Delphos, Ohio.
 Roofing & Supply Co., Chattanooga, Tenn.
 Sioux Steel Co., Sioux Falls, S. D.

United States Steel Corp., Pittsburgh, Pa.
Wheeling Corrugating Co., Wheeling, W. Va.
Wheeling Metal & Mfg. Co., Moundsville, W. Va.

ROOFING, SHEET METAL, STEEL, TIN PLATE

Berger Mfg. Div. of Republic Steel Corp., Canton, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Inland Steel Products Co., Milwaukee, Wis.
Klauser Mfg. Co., Dubuque, Iowa.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Perkinson, William J., Chicago, Ill.
Sioux Steel Co., Sioux Falls, S. D.
United States Steel Corp., Pittsburgh, Pa.
Wheeling Corrugating Co., Wheeling, W. Va.

ROOFING, SHEET METAL, ZINC

Barnes Metal Products Co., Chicago, Ill.
Empire Metal Co., Syracuse, N. Y.
Illinois Zinc Co., Chicago, Ill.
Matthiessen & Hegeler Zinc Co., La Salle, Ill.
New Jersey Zinc Co., New York, N. Y.
Perkinson, William J., Chicago, Ill.
Roofing & Supply Co., Chattanooga, Tenn.

ROOM COOLING UNITS

See Units, Air Conditioning, Room Type

ROOM THERMOSTATS

See Controls, Thermostats

ROUND DUCT, PREFABRICATED

See Pipe and Fittings, Furnace

ROUND DUCT SYSTEM, PACKAGED

See Systems, Heating, Small Pipe

RUST PROTECTION FOR METALS

See Chemicals, Rust Preventive

SANDERS

See Buffers, Grinders, Polishers and Sanders

SAVERS, HEAT

See Recoverers, Heat

SAWS, BAND, SHEET METAL CUTTING

See Machines, Sheet Metal

SCREENS, SUN REFLECTING

Kaiser Aluminum & Chemical Corp., Oakland, Calif.
Reflectal Corp., Subsidiary Borg-Warner Corp., Chicago, Ill.

SCREWS, SHEET METAL

Allmetal Screw Products Co., Inc., Garden City, N. Y.
American Screw Co., Willimantic, Conn.
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Clark Bros. Bolt Co., Milldale, Conn.
Continental Screw Co., New Bedford, Mass.
Elco Tool & Screw Corp., Rockford, Ill.
Harper Co., H. M., Morton Grove, Ill.
Independent Nail & Packing Co., Bridgewater, Mass.
Industrial Screw Co., Chicago, Ill.
National Lock Co., Inc., Rockford, Ill.
Parker-Kalon Div., General American Transportation Corp., New York, N. Y.
Pheoll Mfg. Co., Chicago, Ill.
Rockford Screw Products Co., Rockford, Ill.
Roofing & Supply Co., Chattanooga, Tenn.
Set Screw & Mfg. Co., Bartlett, Ill.
Shakeproof Div., Illinois Tool Wks., Chicago, Ill.
Star Stainless Screw Co., Paterson, N. J.
Townsend Co., New Brighton, Pa.
United States Register Co., Battle Creek, Mich.

SEALS FOR REGISTERS

Excel Heating & Air Conditioning Co., Chicago, Ill.
Sponge Rubber Products Co., Shelton, Conn.

SEAMER MACHINES

See Machines, Seaming

SETTING DOWN MACHINES

See Machines, Setting Down

SHEARS AND PUNCHES COMBINED

See Punches and Shears Combined

SHEARS, HAND AND BENCH

See Snips and Shears, Bench and Hand

SHEARS, THROATLESS

Beverly Shear Mfg. Co., The, Chicago, Ill.

SHEET METAL PANELS FOR CURTAIN WALL

See Panels, Curtain Wall

SHEETS, METAL, ALUMINUM

Aluminum Co. of America, Pittsburgh, Pa.
American Nickeloid Co., Peru, Ill.
American Silver Co., Inc., Flushing, N. Y.
Apollo Metal Works, Chicago, Ill.
Char-Gale Mfg. Co., Anoka, Minn.
Conklin Brass & Copper Co., Inc., T. E., New York, N. Y.
Fairmont Aluminum Co., Fairmont, W. Va.
Kaiser Aluminum & Chemical Corp., Oakland, Calif.
Lustrik, Inc., Philadelphia, Pa.
Nichols Wire & Aluminum Co., Davenport, Iowa.
Quaker State Metals Co., Lancaster, Pa.
Ralph Mfg. Co., Wadsworth, Ohio.
Revere Copper & Brass, Inc., New York, N. Y.
Reynolds Metals Co., Louisville, Ky.
Rigidized Metals Corp., Buffalo, N. Y.

SHEETS, METAL, CLAD

Allegheny Ludlum Steel Corp., Pittsburgh, Pa. (Stainless steel)
Aluminum Co. of America, Pittsburgh, Pa. (Aluminum)
American Nickeloid Co., Peru, Ill. (Nickel, chromium, brass & copper)
American Silver Co., Inc., Flushing, N. Y.
Division Lead Co., Summit, Ill. (Lead)
General Plate, Div. Metals & Controls Corp., Attleboro, Mass.
Handy & Harman, New York, N. Y.
Kaiser Aluminum & Chemical Corp., Oakland, Calif. (Aluminum)
Lukens Steel Co., Coatesville, Pa. (Nickel, Monel, Inconel & stainless steel)
Reflectal Corp., Subsidiary Borg-Warner Corp., Chicago, Ill. (Stainless)
Rigidized Metals Corp., Buffalo, N. Y.

SHEETS, METAL, COPPER

American Brass Co., Waterbury, Conn.
American Nickeloid Co., Peru, Ill.
American Silver Co., Inc., Flushing, N. Y.
Apollo Metal Works, Chicago, Ill.
Bridgeport Brass Co., Bridgeport, Conn.
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Cheney Flashing Co., Trenton, N. J.
Conklin Brass & Copper Co., Inc., T. E., New York, N. Y.
Downs-Smith Brass & Copper Co., Inc., New York, N. Y.
Hussey & Co., C. G., Pittsburgh, Pa.
Inland Steel Products Co., Milwaukee, Wis.
Klauser Mfg. Co., Dubuque, Ia.
Metals Div., Olin Mathieson Chemical Corp., East Alton, Ill.
Revere Copper & Brass Inc., New York, N. Y.
Rigidized Metals Corp., Buffalo, N. Y.
Roofing & Supply Co., Chattanooga, Tenn.
Weirton Steel Co., Weirton W. Va.

SHEETS, METAL, COPPER, LEAD COATED

Bridgeport Brass Co., Bridgeport, Conn.
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Downs-Smith Brass & Copper Co., Inc., New York, N. Y.
Hussey & Co., C. G., Pittsburgh, Pa.
Lamb & Ritchie Co., Cambridge, Mass.
Lecote Products Co., Long Island City, N. Y.
Revere Copper & Brass Inc., New York, N. Y.
Rigidized Metals Corp., Buffalo, N. Y.
Roofing & Supply Co., Chattanooga, Tenn.

SHEETS, METAL, LEAD

Alpha Metals, Inc., Jersey City, N. J.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Division Lead Co., Summit, Ill.
Downs-Smith Brass & Copper Co., Inc., New York, N. Y.
Empire Metal Co., Syracuse, N. Y.

Federated Metals Div., American Smelting & Refining Co., New York, N. Y.

Flemm Lead Co., Inc., Long Island City, N. Y.

Glaser Lead Co., Inc., Brooklyn, N. Y.

Illinois Zinc Co., Chicago, Ill.

Kirk & Son, Morris, Pa., Los Angeles, Calif.

National Lead Co., New York, N. Y.

Northwest Lead Co., Seattle, Wash.

Standard Rolling Mills, Inc., Brooklyn, N. Y.

Weirton Steel Co., Weirton, W. Va.

SHEETS, METAL, SPECIAL METAL

American Brass Co., Waterbury, Conn. (Copper-silicon alloys)

American Silver Co., Inc., Flushing, N. Y.

Bethlehem Steel Co., Bethlehem, Pa. (Nickel-Chromium)

Cheney Flashing Co., Trenton, N. J. (Copper-zinc alloy)

Division Lead Co., Summit, Ill. (Non-ferrous)

Dow Chemical Co., Midland, Mich. (Magnesium)

Handy & Harman, New York, N. Y. (Silver, gold-silver alloys)

International Nickel Co., Inc., New York, N. Y. (Nickel & nickel alloys)

Lukens Steel Co., Coatesville, Pa. (Monel & Inconel)

Maysteel Products, Inc., Milwaukee, Wis.

Metals Div., Olin Mathieson Chemical Corp., East Alton, Ill.

(Brass & bronze)

National Sheet Metal Co., Peru, Ill. (Electro-Plated)

Reflectal Corp., Subsidiary Borg-Warner Corp., Chicago, Ill.

Revere Copper & Brass Inc., New York, N. Y. (Copper alloys)

Rigidized Metals Corp., Buffalo, N. Y. (Titanium)

Robertson Co., H. H., Pittsburgh, Pa. (Protected)

Youngstown Sheet & Tube Co., Youngstown, O.

SHEETS, METAL, STEEL, ALUMINUM COATED

Armco Steel Corp., Middletown, Ohio.

Rigidized Metals Corp., Buffalo, N. Y.

SHEETS, METAL, STEEL, BLACK

Bethlehem Steel Co., Bethlehem, Pa.

Ceco Steel Products Corp., Chicago, Ill.

Columbia-Geneva Steel Div., U. S. Steel Corp., San Francisco, Calif.

Continental Steel Corp., Kokomo, Ind.

Inland Steel Products Co., Milwaukee, Wis.

Jones & Laughlin Steel Corp., Pittsburgh, Pa.

New Delphos Mfg. Co., Delphos, O.

Newport Steel Corp., Newport, Ky.

Niles Rolling Mill Co., Niles, Ohio.

Pittsburgh Steel Co., Pittsburgh, Pa.

Reeves Steel & Mfg. Co., Dover, Ohio.

Republic Steel Corp., Cleveland, Ohio.

Rigidized Metals Corp., Buffalo, N. Y.

Roofing & Supply Co., Chattanooga, Tenn.

Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala.

United States Steel Corp., Pittsburgh, Pa.

Wheeling Corrugating Co., Wheeling, W. Va.

Wood Steel Co., Alan, Conshohocken, Pa.

Youngstown Sheet & Tube Co., Youngstown, Ohio.

SHEETS, METAL, STEEL, BLUE, POLISHED

Granite City Steel Co., Granite City, Ill.

Inland Steel Products Co., Milwaukee, Wis.

Reeves Steel & Mfg. Co., Dover, Ohio.

Rigidized Metals Corp., Buffalo, N. Y.

SHEETS, METAL, STEEL, COPPER BEARING, GALVANIZED

Armco Steel Corp., Middletown, Ohio.

Berger Mfg. Div. of Republic Steel Corp., Canton, Ohio.

Bethlehem Steel Co., Bethlehem, Pa.

Ceco Steel Products Corp., Chicago, Ill.

Columbia-Geneva Steel Div., U. S. Steel Corp., San Francisco, Calif.

Continental Steel Corp., Kokomo, Ind.

Granite City Steel Co., Granite City, Ill.

Inland Steel Co., Chicago, Ill. (Copper alloy & zinc alloy)

International Steel Co., Evansville, Ind.

Newport Steel Corp., Newport, Ky.

Niles Rolling Mill Co., Niles, Ohio.

Reeves Steel & Mfg. Co., Dover, Ohio.

Republic Steel Corp., Cleveland, Ohio.

Rigidized Metals Corp., Buffalo, N. Y.

Roofing & Supply Co., Chattanooga, Tenn.

Sharon Steel Co., Sharon, Pa.

Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala.

United States Steel Corp., Pittsburgh, Pa.

Weirton Steel Co., Weirton, W. Va.

Wheeling Corrugating Co., Wheeling, W. Va.

Youngstown Sheet & Tube Co., Youngstown, Ohio.

SHEETS, METAL, STEEL, CORRUGATED

Armco Steel Corp., Middletown, Ohio.

Berger Mfg. Div. of Republic Steel Corp., Canton, Ohio. (Galv.)

Bethlehem Steel Co., Bethlehem, Pa. (Galv.)

Ceco Steel Products Corp., Chicago, Ill. (Galvanized)

Inland Steel Products Co., Milwaukee, Wis.

International Steel Co., Evansville, Ind.

New Delphos Mfg. Co., Delphos, Ohio. (Galv.)

Newport Steel Corp., Newport, Ky. (Galv. & black)

Niles Rolling Mill Co., Niles, Ohio.

Reeves Steel & Mfg. Co., Dover, Ohio. (Galv. & black)

Republic Steel Corp., Cleveland, Ohio. (Galv.)

Roofing & Supply Co., Chattanooga, Tenn.

Sharon Steel Corp., Sharon, Pa. (Black and galvanized)

Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala.

United States Steel Corp., Pittsburgh, Pa. (Galv. & black)

Weirton Steel Co., Weirton, W. Va. (Galv.)

Wheeling Corrugating Co., Wheeling, W. Va.

SHEETS, METAL, STEEL, GALVANIZED

Armco Steel Corp., Middletown, Ohio.

Berger Mfg. Div. of Republic Steel Corp., Canton, Ohio.

Bethlehem Steel Co., Bethlehem, Pa.

Ceco Steel Products Corp., Chicago, Ill.

Char-Gale Mfg. Co., Anoka, Minn.

Columbia-Geneva Steel Div., U. S. Steel Corp., San Francisco, Calif.

Continental Steel Corp., Kokomo, Ind.

Inland Steel Co., Chicago, Ill.

International Rolling Mill Products Corp., Chicago, Ill.

International Steel Co., Evansville, Ind.

Klauser Mfg. Co., Dubuque, Ia.

New Delphos Mfg. Co., Delphos, Ohio.

Newport Steel Corp., Newport, Ky.

Niles Rolling Mill Co., Niles, Ohio.

Quaker State Metals Co., Lancaster, Pa.

Ralph Mfg. Co., Inc., Wadsworth, Ohio.

Reeves Steel & Mfg. Co., Dover, Ohio.

Republic Steel Corp., Cleveland, Ohio.

Rigidized Metals Corp., Buffalo, N. Y.

Roofing & Supply Co., Chattanooga, Tenn.

Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala.

United States Steel Corp., Pittsburgh, Pa.

Weirton Steel Co., Weirton, W. Va.

Wheeling Corrugating Co., Wheeling, W. Va.

SHEETS, METAL, STEEL, GALVANNEALED

Berger Mfg. Div. of Republic Steel Corp., Canton, Ohio.

Columbia-Geneva Steel Div., U. S. Steel Corp., San Francisco, Calif.

Continental Steel Corp., Kokomo, Ind.

Newport Steel Corp., Newport, Ky.

Niles Rolling Mill Co., Niles, Ohio.

Republic Steel Corp., Cleveland, Ohio.

Rigidized Metals Corp., Buffalo, N. Y.

Sharon Steel Corp., Sharon, Pa.

United States Steel Corp., Pittsburgh, Pa.

SHEETS, METAL, STEEL, PROTECTIVE COATED

American Steel Band Co., Pittsburgh, Pa.

Apollo Metal Works, Chicago, Ill.

Baltimore Porcelain Steel Corp., Baltimore, Md. (Porcelain)

Coated Coil Corp., New York, N. Y.

Erie Enameling Co., Erie, Pa.

Ferro-Enamel Corp., Cleveland, O. (Enamel)

Mid-America Steel Warehouses, Chicago, Ill.

O'Sullivan Rubber Corp., Winchester, Va. (Plastic, ornamental, laminated)

Plasteel Products Corp., Washington, Pa.

Rigidized Metals Corp., Buffalo, N. Y.

Robertson Co., H. H., Pittsburgh, Pa.

Wheeling Corrugating Co., Wheeling, W. Va.

SHEETS, METAL, STEEL, STAINLESS

Allegheny Ludlum Steel Corp., Pittsburgh, Pa.

American Silver Co., Inc., Flushing, N. Y.

Apollo Metal Works, Chicago, Ill.

Armco Steel Corp., Middletown, Ohio.

Berger Mfg. Div. of Republic Steel Corp., Canton, Ohio.

Crucible Steel Co., Pittsburgh, Pa.

Chase Brass & Copper Co., Inc., Waterbury, Conn.

Eastern Stainless Steel Corp., Baltimore, Md.
 International Steel Co., Evansville, Ind.
 Jessop Steel Co., Washington, Pa.
 McLouth Steel Corp., Detroit, Mich.
 Reflectal Corp., Subsidiary Borg-Warner Corp., Chicago, Ill.
 Republic Steel Corp., Cleveland, Ohio.
 Rigidized Metals Corp., Buffalo, N. Y.
 Sharon Steel Corp., Sharon, Pa.
 Superior Steel Corp., Pittsburgh, Pa.
 Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala.
 United States Steel Corp., Pittsburgh, Pa.
 Universal-Cyclops Steel Corp., Bridgeville, Pa.
 Washington Steel Corp., Washington, Pa.

SHEETS, METAL, STEEL, TERNE PLATE

Armco Steel Corp., Middletown, Ohio.
 Berger Mfg. Div. of Republic Steel Corp., Canton, Ohio.
 Bethlehem Steel Co., Bethlehem, Pa.
 Inland Steel Co., Chicago, Ill.
 Niles Rolling Mill Co., Niles, Ohio.
 Republic Steel Corp., Cleveland, O.
 Rigidized Metals Corp., Buffalo, N. Y.
 Roofing & Supply Co., Chattanooga, Tenn.
 Sharon Steel Corp., Sharon, Pa.
 Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala.
 United States Steel Corp., Pittsburgh, Pa.
 Weirton Steel Co., Weirton, W. Va.
 Wheeling Corrugating Co., Wheeling, W. Va.
 Youngstown Sheet & Tube Co., Youngstown, Ohio.

SHEETS, METAL, STEEL, TIN PLATE

Berger Mfg. Div., Republic Steel Corp., Canton, Ohio.
 Bethlehem Steel Co., Bethlehem, Pa.
 Granite City Steel Co., Granite City, Ill.
 Inland Steel Co., Chicago, Ill.
 Jones & Laughlin Steel Corp., Pittsburgh, Pa.
 Republic Steel Corp., Cleveland, Ohio.
 Rigidized Metals Corp., Buffalo, N. Y.
 Sharon Steel Corp., Sharon, Pa.
 Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala.
 United States Steel Corp., Pittsburgh, Pa.
 Weirton Steel Co., Weirton, W. Va.
 Wheeling Corrugating Co., Wheeling, W. Va.
 Youngstown Sheet & Tube Co., Youngstown, Ohio.

SHEETS, METAL, ZINC

American Nickeloid Co., Peru, Ill.
 Apollo Metal Works, Chicago, Ill.
 Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
 Downs-Smith Brass & Copper Co., Inc., New York, N. Y.
 Empire Metal Co., Syracuse, N. Y.
 Hegeler Zinc Co., Danville, Ill.
 Illinois Zinc Co., Chicago, Ill.
 Kirk & Son, Inc., Morris P., Los Angeles, Calif.
 Matthiessen & Hegeler Zinc Co., La Salle, Ill.
 New Jersey Zinc Co., New York, N. Y.
 Rigidized Metals Corp., Buffalo, N. Y.

SHEETS, NON-METALLIC

Acme Asbestos Covering & Flooring Co., Chicago, Ill. (Asbestos cement).
 Alsynite Co. of America, San Diego, Calif. (Translucent fiber-glass)
 Carey Mfg. Co., Philip, Cincinnati, Ohio. (Asbestos cement)
 Celotex Corp., Chicago, Ill.
 Chemold Co., Santa Monica, Calif. (Fiber glass)
 Continental-Diamond Fibre Co., Newark, Del.
 Johns-Manville, New York, N. Y. (Asbestos cement)
 Keasbey & Mattison Co., Ambler, Pa. (Asbestos)
 Keystone Asphalt Products Co., Chicago, Ill.
 Meadows, Inc., W. R., Elgin, Ill.
 Norristown Magnesia & Asbestos Co., Norristown, Pa. (Asbestos)
 Panelyte Div., St. Regis Paper Co., New York, N. Y. (Plastic)
 Plastex Corp., Columbus, O. (Plastic)
 Resolite Corp., Zelienople, Pa.
 Rohm & Haas Co., Philadelphia, Pa. (Plastic)
 Ruberoid Co., New York, N. Y. (Asbestos cement; flat & corrugated)
 Sall Mountain Co., Hamilton, O. (Asbestos)

SHEETS, TRANSLUCENT

See Panels, Plastic, Translucent Material

SHINGLES AND TILE, METAL

Armstrong Cork Co., Lancaster, Pa.
 Berger Mfg. Div., Republic Steel Corp., Canton, Ohio.
 (Galv.)

Edwards Mfg. Co., Inc., Cincinnati, Ohio. (Galv. steel, tin, zinc, aluminum & copper)
 Fingles Co., Baltimore, Md. (All metals)
 Matthiessen & Hegeler Zinc Co., La Salle, Ill. (Zinc)
 Miller & Doing, Brooklyn, N. Y.
 Reynolds Metals Co., Louisville, Ky. (Aluminum)
 Wheeling Corrugating Co., Wheeling, W. Va. (Steel shingles)
 Wallace Co., William, Metalbestos Div., Belmont, Calif. (Painted tin and galv.)

SHUTTERS, DUCT, AUTOMATIC

See Louvers and Shutters, Automatically Controlled

SHUTTERS, DUCT, MANUAL

See Louvers and Shutters, Manually Controlled

SHUTTERS, EXTERIOR WALL

See Louvers and Shutters

SKYLIGHT LIFTS

See Lifts, Skylight

SKYLIGHTS

Alsynite Co. of America, San Diego, Calif.
 American Steel Band Co., Pittsburgh, Pa.
 Biersach & Niedermeyer Co., Milwaukee, Wis.
 Danzer Metal Works Co., Hagerstown, Md.
 Fingles Co., Baltimore, Md.
 Gehri Co., Tacoma, Wash.
 General Sheet Metal Works, Inc., Bridgeport, Conn.
 LaCrosse Steel Roofing & Corrugating Co., LaCrosse, Wis.
 Lee & Son Co., Thomas, Cincinnati, Ohio.
 Moeschl-Edwards Corrugating Co., Inc., Cincinnati, Ohio.
 Overly, Lloyd H., Maryville, Tenn.
 Overly Mfg. Co., Greensburg, Pa.
 Pennsylvania Wire Glass Co., Philadelphia, Pa.
 Perkinson, William J., Chicago, Ill.
 Riester & Thesmacher Co., Cleveland, Ohio.
 Riggan Metal Products, Kankakee, Ill.
 Robertson Co., H. H., Pittsburgh, Pa.
 St. Paul Corrugating Co., St. Paul, Minn.
 Schoedinger, F. O., Columbus, Ohio.
 Sioux Steel Co., Sioux Falls, S. D.
 Southbridge Roofing Co., Inc., Southbridge, Mass.
 Souther Iron Co., E. E., St. Louis, Mo.
 Thomson Electric Welder Co., Lynn, Mass.
 Tiffin Art Metal Co., Tiffin, Ohio.
 Vallas, Lionel, Chicago, Ill.
 Van Noorden Co., E., Boston, Mass.
 Vent-O-Lite Co., Chicago, Ill.
 Wasco Flashing Co., Cambridge, Mass.
 Willis Steel Corp., Galesburg, Ill.
 York Corrugating Co., York, Pa.

SLITTING MACHINES

See Machines, Slitting

SMOKE PIPE

See Pipe and Fittings, Furnace

SNIPS AND SHEARS, BENCH AND HAND

Bartlett Mfg. Co., Detroit, Mich.
 Berridge Shear Co., Sturgis, Mich.
 Beverly Shear Mfg. Co., Chicago, Ill.
 Bremil Mfg. Co., Erie, Pa.
 Compton Shear Co., W. H., Newark, N. J.
 Crescent Tool Co., Jamestown, N. Y.
 Heinrich Tools, Inc., Racine, Wis.
 Henkel-Clauss Co., Fremont, Ohio.
 Kidder Mfg. Co., Inc., J. F., Burlington, Vt.
 Klenk's Aviation Snips, Wilmington, Del.
 Lincoln Machine Co., Boston, Mass.
 Niagara Machine & Tool Works, Buffalo, N. Y.
 O'Neil-Irwin Mfg. Co., Lake City, Minn.
 Peck, Stow & Wilcox Co., Southington, Conn.
 Penn Tool Co., Philadelphia, Pa.
 Proto Tools, Los Angeles, Calif.
 Roto-Table Co., Dayton, Ohio.
 Snap-on Tools Corp., Kenosha, Wis.
 Viking Shear Co., Erie, Pa.
 Whitney Mfg. Co., W. A., Rockford, Ill.
 Wiss & Sons Co., J., Newark, N. J.

SNOW GUARDS

See Guards, Snow

SOLDER, ALUMINUM

All-State Welding Alloys Co., Inc., White Plains, N. Y.
Allen Co., L. B., Chicago, Ill.
American Solder & Flux Co., Philadelphia, Pa.
Anchor Metal Co., Brooklyn, N. Y.
Chemalloy Electronics, Inc., Santee, Calif.
Division Lead Co., Summit, Ill.
Empire Metal Co., Syracuse, N. Y.
Farrelloy Co., Philadelphia, Pa.
Fusion Engineering, Cleveland, O.
Glaser Lead Co., Inc., Brooklyn, N. Y.
Johnson Gas Appliance Co., Cedar Rapids, Ia.
Johnson Mfg. Co., Inc., Mt. Vernon, Ia.
Kester Solder Co., Chicago, Ill.
Lenk Mfg. Co., Boston, Mass.
Marquette Mfg. Co., Inc., Minneapolis, Minn.
Metalloy Products Co., Los Angeles, Calif.
Modern Engineering Co., St. Louis, Mo.
Perco, Glendora, Calif.

SOLDER, LEAD-TIN

All-State Welding Alloys Co., Inc., White Plains, N. Y.
Allen Co., L. B., Chicago, Ill.
Alpha Metals, Inc., Jersey City, N. J.
American Products Corp., Chicago, Ill.
Anchor Metal Co., Brooklyn, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Chicago Smelting & Refining Corp., Chicago, Ill.
Conklin Brass & Copper Co., Inc., T. E., New York, N. Y.
Division Lead Co., Summit, Ill.
Downs-Smith Brass & Copper Co., Inc., New York, N. Y.
Empire Metal Co., Syracuse, N. Y.
Eutectic Welding Alloys Corp., Flushing, N. Y.
Farrelloy Co., Philadelphia, Pa.
Federated Metals Div., American Smelting & Refining Co., New York, N. Y.
Flemm Lead Co., Inc., Long Island City, N. Y.
Fluxolder Products Co., Detroit, Mich.
Fusion Engineering, Cleveland, O.
Glaser Lead Co., Inc., Brooklyn, N. Y.
Hercules Chemical Co., Inc., New York, N. Y.
Johnson Gas Appliance Co., Cedar Rapids, Ia.
Johnson Mfg. Co., Mt. Vernon, Ia.
Kester Solder Co., Chicago, Ill.
Kirk & Son, Inc., Morris P., Los Angeles, Calif.
Klauer Mfg. Co., Dubuque, Ia.
Lenk Mfg. Co., Boston, Mass.
London Chemical Co., Chicago, Ill.
Lukens Metal Co., Thos. F., Philadelphia, Pa.
Mueller Brass Co., Port Huron, Mich.
National Lead Co., New York, N. Y.
New Delphos Mfg. Co., Delphos, O.
Northwest Lead Co., Seattle, Wash.
Ohmer Co., Geo. H., Dayton, O.
Potts-Farrington Co., Philadelphia, Pa.
Ruby Chemical Co., Columbus, O.
S. O. S. Products Co., Inc., Brooklyn, N. Y.
Standard Rolling Mills, Inc., Brooklyn, N. Y.
Tinit Mfg. Co., Inc., Denver, Colo.
Wonderod Corp., Philadelphia, Pa.

SOLDER, SILVER

All-State Welding Alloys Co., Inc., White Plains, N. Y.
Allen Co., L. B., Chicago, Ill.
Alpha Metals, Inc., Jersey City, N. J.
Anchor Metal Co., Brooklyn, N. Y.
Empire Metal Co., Syracuse, N. Y.
Fusion Engineering, Cleveland, O.
General Plate Div., Metals & Controls Corp., Attleboro, Mass.
Handy & Harman, New York, N. Y.
Marquette Mfg. Co., Inc., Minneapolis, Minn.
Mueller Brass Co., Port Huron, Mich.
United Wire & Supply Corp., Providence, R. I.

SOLDER, STAINLESS STEEL

All-State Welding Alloys Co., Inc., White Plains, N. Y.
Allen Co., L. B., Chicago, Ill.
Alpha Metals, Inc., Jersey City, N. J.
Anchor Metal Co., Brooklyn, N. Y.
Division Lead Co., Summit, Ill.

Empire Metal Co., Syracuse, N. Y.
Fusion Engineering, Cleveland, O.
Johnson Mfg. Co., Inc., Mt. Vernon, N. Y.
Kester Solder Co., Chicago, Ill.
Kirk & Son, Inc., Morris F., Los Angeles, Calif.
Lukens Metal Co., Thos. F., Philadelphia, Pa.

SOLDER, ZINC

All-State Welding Alloys Co., Inc., White Plains, N. Y.
Anchor Metal Co., Brooklyn, N. Y.
Chemalloy Electronics, Inc., Santee, Calif.
Division Lead Co., Summit, Ill.
Empire Metal Co., Syracuse, N. Y.
Glaser Lead Co., Inc., Brooklyn, N. Y.

SOLDERING COPPERS

See Coppers, Soldering

SOLDERING FLUX

See Flux

SOLDERING FURNACES

See Furnaces, Soldering

SOLDERING TORCHES

See Torches, Soldering

SOLENOID VALVES

See Valves, Solenoid

SOLVENTS, TANK, FUEL OIL

Ampion Corp., Long Island City, N. Y.
Barclay, Inc., Robert, Chicago, Ill.
Celco Corp., New York, N. Y.
Dearborn Chemical Co., Chicago, Ill.
Madden Corp., The, Chicago, Ill.
Moreheat Distribution Co., Cincinnati, O.
North American Mogul Products Co., Cleveland, O.
Pennsylvania Refining Co., Ohio Div., Cleveland, O.
Petroleum Solvent Corp., New York, N. Y.
Radiator Specialty Co., Charlotte, N. C.
Red Wing Oil Burner Co., Inc., Medford, Mass.
S. O. S. Products Co., Inc., Brooklyn, N. Y.
Saginaw Salt Products Co., Saginaw, Mich.
Shell Oil Co., New York, N. Y.

SOOT REMOVER

See Remover, Soot

SPOT WELDERS

See Welders, Spot

SPRAY GUNS

See Guns, Spray

STAINLESS STEEL SHEETS

See Sheets, Metal, Steel, Stainless

STAMPINGS, METAL

Ackermann Mfg. Co., Wheeling, W. Va.
Acme Mfg. Co., Philadelphia, Pa.
Aluminum Co. of America, Pittsburgh, Pa.
Aluminum Goods Mfg. Co., Manitowoc, Wis.
American Pulley Co., Philadelphia, Pa.
Berger Furnace Corp., Belle Vernon, Pa.
Bossert Div., Rockwell Spring and Axle Co., Utica, N. Y.
Burgess-Norton Mfg. Co., Geneva, Ill.
Campbell Stainless Products Co., Washington, Pa. (Stainless steel letters)
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Chicago Metal Mfg. Co., Chicago, Ill. (Rings)
Commercial Shearing & Stamping Co., Youngstown, Ohio.
Dahlstrom Metallic Door Co., Jamestown, N. Y.
Dayton Rogers Mfg. Co., Minneapolis, Minn.
Detroit Stamping Co., Detroit, Mich.
Division Lead Co., Summit, Ill.
Downs-Smith Brass & Copper Co., Inc., New York, N. Y.
Edwards Mfg. Co., Inc., Cincinnati, Ohio.
Elgen Mfg. Corp., Long Island City, N. Y. (Vane runners)
Falstrom Co., Passaic, N. J.

Globe Machine & Stamping Co., Cleveland, Ohio.
H P L Mfg. Co., Cleveland, Ohio.
Hupp Corp., Globe Stamping Div., Cleveland, Ohio.
Kirk & Blum Mfg. Co., Cincinnati, Ohio.
Ledcote Products Co., Long Island City, N. Y.
Lukens Steel Co., Coatesville, Pa.
Maysteel Products, Inc., Milwaukee, Wis.
Metals Div., Olin Mathieson Chemical Corp., East Alton, Ill.
Miller & Doing, Brooklyn, N. Y.
Morrison Products Inc., Cleveland, Ohio.
Morrison Steel Products, Inc., Buffalo, N. Y.
Moss Industries, Inc., Brooklyn, N. Y.
Mt. Vernon Furnace & Mfg. Co., Mt. Vernon, Ill.
National Metal Fabricators, Chicago, Ill.
New Delphos Mfg. Co., Delphos, Ohio.
New Monarch Machine & Stamping Co., Des Moines, Iowa.
Northwest Metal Products, Inc., Seattle, Wash.
Paine Co., Addison, Ill.
Radiation Furnace Corp., Benton Harbor, Mich.
Reichert Float & Mfg. Co., Toledo, O.
Republic Steel Corp., Cleveland, O.
Revere Copper & Brass Inc., New York, N. Y. (Copper & copper alloy)
Reynolds Metals Co., Louisville, Ky.
Shakeproof Div., Illinois Tool Works, Chicago, Ill.
Small Lot Stamping Co., Linden, N. J.
Standard Stamping & Perforating Co., Chicago, Ill.
Steinen Mfg. Co., Wm., Newark, N. J.
Tannewitz Works, Grand Rapids, Mich.
United-Carr Fastener Corp., Cambridge, Mass.
United States Register Co., Battle Creek, Mich.
Wheeling Corrugating Co., Wheeling, W. Va.
Wickwire Spencer Steel Div., Colorado Fuel & Iron Corp., New York, N. Y.
Worcester Pressed Steel Co., Worcester, Mass.
York Corrugating Co., York, Pa.
Youngstown Sheet & Tube Co., Youngstown, Ohio.

STAMPINGS, STEEL FURNACE

Ackermann Mfg. Co., Wheeling, W. Va.
Berger Furnace Corp., Belle Vernon, Pa.
Commercial Shearing & Stamping Co., Youngstown, Ohio. (Heads for furnace domes & crescent radiators)
Mohawk Metal Products Co., Frankfort, N. Y. (Furnace shells and radiators)
Mt. Vernon Furnace & Mfg. Co., Mt. Vernon, Ill.
Radiation Furnace Corp., Benton Harbor, Mich.

STEEL TUBING

See Tubing, Steel

STERILIZERS, AIR

Air-Heat Corp., Chicago, Ill.
Air Purification Service, Inc., New York, N. Y.
General Ozone Corp., Chicago, Ill.
Germatrol Corp., Pittsburgh, Pa.
Hanovia Chemical & Mfg. Co., Newark, N. J.
Health Trola Div., Excel Heating & Air Conditioning Co., Chicago, Ill.
Iron City Chemical Co., Glycolator Div., Valencia, Pa.
Melco Products, Inc., Minneapolis, Minn.
National Air Conditioning, Inc., Johnstown, Pa.
Sampson Chemical and Treatment Co., Inc., Chicago, Ill.

STOKER CONTROLS

See Controls; Control Systems

STOKERS, DOMESTIC

Up to 61 lb per Hour

Allen Stoker Co., Allentown, Pa.
American Furnace Co., St. Louis, Mo.
Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
Auburn Burner Co., Auburn, Ind.
Auburn Foundry, Inc., Stoker Div., Auburn, Ind.
Automatic Firing Corp., St. Louis, Mo.
Black Diamond Stoker Co., Sioux City, Iowa.
Canton Stoker Corp., Canton, Ohio.
Carpenter Heating & Stoker Co., Cleveland, Ohio.
Central Rubber & Steel Corp., Findlay, Ohio.
Cooper Stoker Co., Pittsfield, Mass.
Cotta Transmission Co., Rockford, Ill.
Crane Co., Chicago, Ill.
Eddy Stoker Corp., Chicago, Ill.

Electric Furnace-Man, Inc., Emmaus, Pa.
Excelsior Stove & Mfg. Co., Quincy, Ill.
Frederick Iron & Steel, Inc., Frederick, Md.
Front Rank Furnace Co., Div. Liberty Foundry Co., St. Louis, Mo.
Fuel Savers, Inc., Harrisburg, Pa.
Gehl Bros. Mfg. Co., West Bend, Wis.
Gross-Aire Mfg. Co., St. Louis, Mo.
Hall-Neal Furnace Co., Indianapolis, Ind.
Heating Assurance, Inc., Spokane, Wash.
Hershey Machine & Foundry Co., Manheim, Pa.
Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill.
Iron Fireman Mfg. Co., Cleveland, Ohio.
Keith Furnace Co., Des Moines, Iowa.
Kingston Products Corp., Tipton, Ind.
Kol-Master Corp., Oregon, Ill.
Leas Co., H. Leslie, Monona, Iowa.
Meyer Furnace Co., Peoria, Ill.
Muncie Gear Works, Inc., Muncie, Ind.
National Steam Pump Co., Upper Sandusky, Ohio.
Nelson Bros. & Strom Co., Racine, Wis.
Northern Steel & Stoker Corp., Peoria, Ill.
Premium Coal & Oil Co., Cincinnati, Ohio.
Quick Furnace & Supply Co., Des Moines, Iowa.
Schwab Furnace Co., Milwaukee, Wis.
Schwab Safe Co., Lafayette, Ind.
Souther Iron Co., E. E., St. Louis, Mo.
Steel Products Engineering Co., Combustioneer Div., Springfield, Ohio.
Stewart-Warner Corp., U. S. Machine Div., Lebanon, Ind.
Stoker-Ola Mfg. Co., Peoria, Ill.
Sun-Fire Stoker Corp., New Albany, Ind.
Tropic-Air Stoker Co., Canton, Ohio.
Whiting Fire Power Products Corp., Superior, Wis.
Will-Burt Co., Orrville, Ohio.
Worsham Co., Inc., Long Beach, Calif.

STOKERS, INDUSTRIAL AND COMMERCIAL

61 lb to 300 lb per Hour

American Engineering Co., Philadelphia, Pa.
Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
Auburn Burner Co., Auburn, Ind.
Auburn Foundry, Inc., Stoker Div., Auburn, Ind.
Automatic Firing Corp., St. Louis, Mo.
Black Diamond Stoker Co., Sioux City, Iowa.
Canton Stoker Corp., Canton, Ohio.
Carpenter Heating & Stoker Co., Cleveland, Ohio.
Central Rubber & Steel Corp., Findlay, Ohio.
Chicago Automatic Stoker Co., Inc., Chicago, Ill.
Cooper Stoker Co., Pittsfield, Mass.
Cotta Transmission Co., Rockford, Ill.
Detroit Stoker Co., Detroit, Mich.
Diamond Castings Co., Johnsonburg, Pa.
Eddy Stoker Corp., Chicago, Ill.
Electric Furnace-Man, Inc., Emmaus, Pa.
Flynn & Emrich Co., Baltimore, Md.
Frederick Iron & Steel, Inc., Frederick, Md.
Front Rank Furnace Co., Div. Liberty Foundry Co., St. Louis, Mo.
Fuel Savers, Inc., Harrisburg, Pa.
Gehl Bros. Mfg. Co., West Bend, Wis.
Gross-Aire Mfg. Co., St. Louis, Mo.
Hall-Neal Furnace Co., Indianapolis, Ind.
Heating Assurance, Inc., Spokane, Wash.
Hershey Machine & Foundry Co., Manheim, Pa.
Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill.
Iron Fireman Mfg. Co., Cleveland, Ohio.
Kingston Products Corp., Tipton, Ind.
Kol-Master Corp., Oregon, Ill.
Leas Co., H. Leslie, Monona, Iowa.
Meyer Furnace Co., Peoria, Ill.
Muncie Gear Works, Inc., Muncie, Ind.
National Steam Pump Co., Upper Sandusky, Ohio.
Nelson Bros. & Strom Co., Racine, Wis.
Ormsby-Osterman Co., St. Louis, Mo.
Premium Coal & Oil Co., Cincinnati, Ohio.
Rosedale Foundry & Machinery Co., Pittsburgh, Pa.
Schwab Furnace Co., Milwaukee, Wis.
Schwab Safe Co., Lafayette, Ind.
Steel Products Engineering Co., Combustioneer Div., Springfield, Ohio.
Stewart-Warner Corp., U. S. Machine Div., Lebanon, Ind.
Stoker-Ola Mfg. Co., Peoria, Ill.
Sun-Fire Stoker Corp., New Albany, Ind.

Tropic-Air Stoker Co., Canton, Ohio.
Westinghouse Electric Corp., Pittsburgh, Pa.
Whiting Fire Power Products Corp., Superior, Wis.
Whitty Co., Inc., Boston, Mass.
Will-burt Co., Orville, Ohio.
Woolley Engineering Co., Detroit, Mich.

STOVE REPAIR PARTS

See Parts, Repair, Furnace and Stove

STOVES

See Heaters

SUMMER COOLING UNITS

See Units, Air Conditioning

SWITCHES, MAGNETIC, MANUAL, TIME

See Controls

SYSTEMS, HEATING, SMALL PIPE

Consisting of furnace, plenum chamber, takeoff fittings, boots, elbows, small pipe

Berger Furnace Corp., Belle Vernon, Pa.
Bryant Htg. Div., Affil. Gas Equipment, Inc., Cleveland, Ohio.
Char-Gale Mfg. Co., Anoka, Minn.
Coleman Co., Inc., Wichita, Kans.
Corbman Bros., Inc., Philadelphia, Pa.
General Automatic Products Corp., Baltimore, Md.
General Electric Co., Air Conditioning Div., Bloomfield, N. J.
Henry Furnace Co., Medina, O.
Inland Steel Products Co., Milwaukee, Wis.
J & J Sheet Metal Co., Van Dyke, Mich.
Jetronaire, Inc., Pittsburgh, Pa.
Lennox Furnace Co., Marshalltown, Iowa.
Majestic Co., Inc., Huntington, Ind.
Meyer Furnace Co., Peoria, Ill.
Mueller Climatrol, Milwaukee, Wis.
Olsen Mfg. Co., The C. A., Elyria, O.
Ralph Mfg. Co., Inc., Wadsworth, O.
Surface Combustion Corp., Toledo, Ohio.
Williamson Heater Co., Cincinnati, O.

TANK GAGES, FUEL OIL

See Gages, Tank, Fuel Oil

TANK SOLVENTS

See Solvents, Tank, Fuel Oil

TANKS, FUEL OIL, ACCESSORIES

Airtherm Mfg. Co., St. Louis, Mo.
Bearlee Products Co., Green Bay, Wis. (Vent caps)
Guardian Products Corp., Valve Div., Michigan City, Ind. (Valve)
Hays Mfg. Co., Erie, Pa. (Valves and fittings)
Morse-Smith-Morse Co., Watertown, Mass. (Vent caps and valves)
Oil Equipment Mfg. Co., New Haven, Conn. (Oil storage tank fittings)
Rockford Brass Works, Rockford, Ill.
Scully Signal Co., Melrose, Mass.

TANKS, STORAGE, FUEL OIL

Airtherm Mfg. Co., St. Louis, Mo.
Black, Sivalis & Bryson, Inc., Kansas City, Mo.
Crane Co., Chicago, Ill.
Kaustine Furnace & Tank Corp., Perry, N.Y.
Mohawk Metal Products Co., Inc., Frankfort, N. Y.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Rheem Mfg. Co., New York, N. Y.
Scaife Co., Oakmont, Pittsburgh District, Pa.
Tri-State Heating, Inc., Detroit Lakes, Minn.

TEES

See Angles, Bars, Beams, Channels, and Tees

TEMPERATURE CONTROLS

See Controls; Control Systems

TEMPERATURE RECORDERS

See Recorders, Temperature

TESTERS, SMOKE

Bacharach Industrial Instrument Co., Pittsburgh, Pa.

THERMOMETERS, INDICATING

Bacharach Industrial Instrument Co., Pittsburgh, Pa.
Bailey Meter Co., Cleveland, Ohio.
Bristol Co., Waterbury, Conn.
Defender Instrument & Regulator Co., St. Louis, Mo.
Dickson Co., Chicago, Ill.
Fee & Stemwedel, Inc., Chicago, Ill.
Foxboro Co., Foxboro, Mass.
Friez Instrument Div., Bendix Aviation Corp., Baltimore, Md.
G. M. Mfg. Co., New York, N. Y.
H-B Instrument Co., Philadelphia, Pa.
Hill & Co., E. Vernon, Lake Geneva, Wis.
Illinois Testing Laboratories, Inc., Chicago, Ill.
Leeds & Northrup Co., Philadelphia, Pa.
Manning, Maxwell & Moore, Inc., Stratford, Conn.
Marsh Corp., Jas. P., Skokie, Ill.
Marshalltown Mfg. Co., Marshalltown, Iowa.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Moeller Instrument Co., Richmond Hill, N. Y.
Palmer Thermometers, Inc., Cincinnati, Ohio.
Philadelphia Thermometer Co., Philadelphia, Pa.
Powers Regulator Co., Skokie, Ill.
Precision Thermometer & Instrument Co., Philadelphia, Pa.
Preferred Utilities Mfg. Corp., New York, N. Y.
Rochester Mfg. Co., Inc., Rochester, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
United States Gauge Div., American Machine & Metals Inc., New York, N. Y.
Wekler Thermometer Corp., Freeport, N. Y.
Weston Electrical Instrument Corp., Newark, N. J.
Wheelco Instruments Div., Barber-Coleman Co., Rockford, Ill.

THERMOSTATS

See Controls, Thermostats

THROUGH WALL FLASHINGS

See Flashings, Through Wall

TIME SWITCHES

See Controls, Switches, Time

TIMERS, WELDING

Automatic Temperature Control Co., Inc., Philadelphia, Pa.
Eisler Engineering Co., Newark, N. J.
Electronic Products Co., St. Charles, Ill.
General Electric Co., Apparatus Sales Div., Schenectady, N. Y.
Peer, Inc., Benton Harbor, Mich.
Photoswitch Div., Electronics Corp. of America, Cambridge, Mass.
Sciaky Bros., Inc., Chicago, Ill.
Westinghouse Electric Corp., Pittsburgh, Pa.

TINNING

See Baths, Tinning

TIPS, DAMPER

See Clips and Tips, Damper

TOOLS, OIL BURNER REPAIR

Boston Machine Works, Lynn, Mass. (Nozzle extractor)
Delavan Mfg. Co., West Des Moines, Ia. (Nozzle extractor)
Eddington Metal Specialty Co., Eddington, Pa.
Kingsley Mfg. Co., New Haven, Conn.

TOOLS, ROOFERS'

Adams Co., Dubuque, Iowa. (Scaffold brackets)
Aeroil Products Co., Inc., South Hackensack, N. J. (Melting kettles, hoists, buckets & accessories)
Ajax Building Bracket Co., Cleveland, Ohio. (Brackets)
Belden Machine Co., New Haven, Conn. (Slater hammers, rippers & stakes)
Connelly Construction Co., Philadelphia, Pa. (Kettles)
Efco Products Co., Syracuse, N. Y. (Roof scrapers)
Frey & Co., Frank P., Chicago, Ill. (All kinds)
Hauck Mfg. Co., Brooklyn, N. Y. (Kettles)
Levow, David, New York, N. Y. (Roof scrapers)
Littleford Bros., Inc., Cincinnati, Ohio. (Roofing kettles)
Matt Coil-Less Burner Co., Chicago, Ill. (Buckets, mops, kettles, etc.)
Melaway Corp., Brandon, Wis.
Moser & Son Mfg. Co., Bluffton, Ind. (Ladder jacks)
Newark Ladder & Bracket Co., Inc., Clark (Rahway), N. J. (Roof brackets & accessories)
Niagara Machine & Tool Works, Buffalo, N. Y. (Double seamers)
Owens-Corning Fiberglass Corp., Toledo, Ohio. (Fiberglass mop yarn)

Peck, Stow & Wilcox Co., Southington, Conn. (Seamers, tongs, etc.)
 Rose Mfg. Co., Denver, Colo. (Ladder shoes)
 Southbridge Roofing Co., Inc., Southbridge, Mass. (Scrapers, spreaders, fire pots, buckets)
 Sperry & Co., D. R., Batavia, Ill. (Kettles)
 Stortz & Son, Inc., John, Philadelphia, Pa. (Tongs, seamers, scrapers, jointers, punches, hammers, rippers, stakes)
 Structural Slate Co., Pen Argyl, Pa. (Hammers, rippers, stakes, cutters, punches)
 Wodack Electric Tool Corp., Chicago, Ill. (Saws)

TOOLS, SHEET METAL WORKERS'

Acro Tool & Die Works, Chicago, Ill. (Portable saw)
 Air-Speed Tool Co., Los Angeles, Calif. (Pneumatic file & saw)
 Allen, H. D., Los Angeles, Calif. (Template transfer punches)
 Atkins Saw Div., Borg-Warner Corp., Indianapolis, Ind. (Band saw & hack saw blades)
 Barth Mfg. Co., Milldale, Conn. (Hand rivet sets, groovers, punches, awls)
 Berridge Shear Co., Sturgis, Mich. (Double cutting pipe snips)
 Black & Decker Mfg. Co., Towson, Md. (Automatic screw driver, portable electric tapper, portable jig saw)
 Bostitch, Westerly, R. I. (Stapling tacker for insulation, stapling hammer)
 Chicago Pneumatic Tool Co., New York, N. Y. (Rivet)
 Clark Co., Robert H., Beverly Hills, Calif. (Adjustable hole cutters & circle cutters)
 Clark-Hopkins Equipment Corp., Philadelphia, Pa.
 Clemson Bros., Inc., Middletown, N. Y. (Hack Saws)
 Crescent Tool Co., Jamestown, N. Y. (Scratch awls, pliers, screw drivers, wrenches)
 Dalsin Metal Products, Minneapolis, Minn. (Ladder jack)
 Damascus Steel Products Corp., Rockford, Ill. (Punches, chisels, star drills, nippers, etc.)
 Davis & Son Machine Works, Los Angeles, Calif. (Clip & button punch)
 Desmond-Stephan Mfg. Co., Urbana, O. (Sheet metal worker's vise)
 Detroit Stamping Co., Detroit, Mich. (Bench clamp)
 Division Lead Co., Summit, Ill. (Ladder shoes and grips)
 Downs-Smith Brass & Copper Co., Inc., New York, N. Y. (Hammers)
 Drilo, Inc., Pittsburgh, Pa. (Screwdriver, chuck and bits for hand drills)
 Duro-Dyne Corp., New Hyde Park, L. I., N. Y. (File and solder iron handles)
 Eriez Mfg. Co., Erie, Pa. (Fanner magnet)
 Excelsior Tool and Machine Co., East St. Louis, Ill. (Sheet clamps)
 Fairmount Tool & Forging Co., Cleveland, Ohio. (Calking irons, File holders, pliers, solder paddle, chisels, punches, hammers)
 Fallsington Mfg. Co., Fallsington, Pa. (Clip punch, drive cleat notcher)
 Fox Noiseless Hammer Co., Media, Pa. (Seaming hammer)
 Frayn Co., N. J., Redwood City, Calif. (Hole cutters)
 General Electric Co., Carboloy Dept., Detroit, Mich. (Concrete drills)
 Ger-Am Imports, Chicago, Ill. (Metal cutting attachment for electric drill)
 Gouran, Mark F., Glenside, Pa. (Welding fixtures)
 Haines Gauge Co., Inc., Philadelphia, Pa. (Thickness gauges)
 Hamilton Tool Co., The, Hamilton, O. (Portable table)
 Haudees Co., Bloomington, Ill. (Truck)
 Hanlan Co., Los Angeles, Calif. (Elec. appliance tester)
 Harris, A. R., Hammond, Ind. (Snips, clamps, ladder brackets)
 Hexdall Co., A. M., Morris, Ill. (Seam openers & hammers)
 Hub Specialty Co., Reading, Mass. (Awl)
 Independent Blade Co., Joliet, Ill. (Portable saw blades)
 Interstate Drop Forge Co., Milwaukee, Wis.
 Interstate Sales Co., New York, N. Y. (Angle meters & center finders)
 Jaco Devices Co., Hingham, Mass. (Portable saw attachment for drill)
 Johnson, Inc., Wm., Newark, N. J. (Rivet sets)
 Johnson Ladder Shoe Co., Eau Claire, Wis. (Rubber ladder shoes, vise jaws, rubber knee pads, rubber mallets)
 Kennametal Inc., Latrobe, Pa. (Masonry & rock drill bits)
 Kett Tool Co., Cincinnati, O. (Portable drill saw)
 Lane Shur-Grip Tool Co., Chicago, Ill.
 Lapeer Mfg. Co., Detroit, Mich. (Vise wrench)
 Lewow, David, New York, N. Y. (Portable saw gun, sheet metal clamp)
 Lufkin Rule Co., Saginaw, Mich. (Rules: tapes, flexible, circumference, etc.; center punches, scribers, etc.)
 Lyon Metal Products, Inc., Aurora, Ill. (Stock cart, tool

stand, tool boxes & work benches)
 Machine Rebuilding Co., Detroit, Mich.
 Magnetool Div., Multifinish Mfg. Co., Detroit, Mich. (Magnetic lifter)
 Malco Products, Minneapolis, Minn. (Drill saw blades, pipe crimpers, scratch awls)
 Maplewood Machinery Co., Chicago, Ill. (Trammels, marking tools)
 Melaway Corp., Brandon, Wis.
 Merchandising & Mfg. Associates, Inc., Lancaster, Pa. (Rivet cutters, shrinkers, stretchers, chisels & joggling blocks)
 Mid-States Welder Mfg. Co., Chicago, Ill. (Portable electric saw)
 Millers Falls Co., Greenfield, Mass. (Hack saw blades)
 Misener Mfg. Co., Inc., Syracuse, N. Y. (Hole saws)
 Moser & Son Mfg. Co., Buffton, Ind. (Spouting tripods)
 Munton Mfg. Co., Franklin Park, Ill. (Hydraulic vises)
 Newark Ladder & Bracket Co., Inc., Clark (Rahway), N. J. (Ladders, aluminum and wood scaffolds)
 New England Carbide Tool Co., Inc., Cambridge, Mass. (Masonry drill bits)
 Niagara Machine & Tool Works, Buffalo, N. Y. (Stakes, hammers, groovers, hollow punches, etc.)
 Nobur Mfg. Co., Burbank, Calif. (Deburring tool)
 Oster Mfg. Co., John, Milwaukee, Wis. (Portable electric saws)
 Owens Co., H., Culver City, Calif. (Pattern developer)
 Packham Crimper Co., Mechanics-Burgh, Ohio. (Crimping tongs)
 Peck, Stow & Wilcox Co., Southington, Conn. (Hammers, awls, rivet sets, groovers, wing dividers, circumference rules, ferrule formers, stakes)
 Penn Tool Co., Philadelphia, Pa. (Punches, chisels & edge tools)
 Pennsylvania Saw Corp., Wellesley Hills, Mass. (Hand saw set)
 Petersen Mfg. Co., Inc., DeWitt, Nebr. (Clamps)
 Phillips Drill Co., Michigan City, Ind. (Anchor bolt drills)
 Pioneer Tool Co., Racine, Wis. (Pipe crimpers, gutter clamps, adjustable saw handles, scratch awls, ladder brackets)
 Porter-Cable Machine Co., Syracuse, N. Y. (Portable hand saw)
 Powder Power Tool Corp., Portland, Ore. (Powder fasteners)
 Powers Wire Products Co., Monroe, Mich. (Stapler)
 Price & Rutzebeck, Hayward, Calif. (Saw attachment for electric drill)
 Producers & Distributors, Inc., Allentown, Pa. (Metal cutting saw attachment for electric drill)
 Rapidesign, Inc., Glendale, Calif. (Templates)
 Rawlplug Co., Inc., New York, N. Y. (Masonry drills)
 RCS Tool Sales Corp., Joliet, Ill. (Power portable saw attachment)
 Ramset Fasteners, Inc., Cleveland, O. (Powder-actuated)
 Reiner & Campbell Co., Inc., Newark, N. J. (Dividers & notchers)
 Roesch Tool Products, Los Angeles, Calif. (Crimper, clamps)
 Rotary Concrete Drill Co., Pasadena, Calif. (Drill bits)
 Roto-Table Co., Dayton, Ohio. (Power table for turning machines)
 Saw-Mor Tool & Blade Co., Chicago, Ill. (Hack saw attachment for electric drill)
 Scheck, William, Ridgefield, N. J. (Punches & Scribers)
 Schild Mfg. Co., Dallas, Texas. (Cutters)
 Scotco Products Co., Beverly, Mass. (Soldering gun)
 Skil Corporation, Chicago, Ill. (Portable power tools)
 Sheridan-Gray, Inc., Palos Verdes Estates, Calif.
 Simonds Saw & Steel Co., Fitchburg, Mass. (Hack saws and blades)
 Smith & Son, Inc., Seymour, Oakville, Conn. (Clamp pliers)
 Snap-on Tools Corp., Kenosha, Wis. (Wrenches, hammers, rules, etc.)
 Stanley Electric Tools Div., The Stanley Works, New Britain, Conn. (Portable electric shear, hammers, squares, chisels, etc.)
 Stortz & Son, Inc., John, Philadelphia, Pa. (Hammer, punches, chisels, rivet sets)
 Termite Drills, Inc., Pasadena, Calif. (Concrete drill bits)
 Time Saver Tools, Inc., Mundelein, Ill. (Drill bits)
 Topflight Corp., York, Pa. (Jigs, riveters, dimplers, rivet removers, scribing discs)
 Tri-Saw Corp., St. Louis, Mo. (Portable power saw)
 Utica Drop Forge & Tool Corp., Utica, N. Y. (Non-ferrous lap-welding dies)
 Vital Products Mfg. Co., Cleveland, Ohio. (Caulking guns & cartridges)
 Vulcan Electric Co., Div. Consolidated Electric Lamp Co., Inc., Danvers, Mass. (Electric solder pots)
 Ward Machinery Co., Chicago, Ill. (Bender)
 Wassco Electric Products Corp., Joliet, Ill. (Electric soldering tool)

Wedgelock Co., North Hollywood, Calif. (Jig fasteners, clamps, sheet metal fasteners)
 Whipple Sheet Metal Works, M. S. & L. H., Lansing, Mich. (Clamps)
 Whitney Mfg. Co., W. A., Rockford, Ill. (Riveting and setting hammers, portable lever punches, punches and dies, shears, notching punches)
 Whitney Metal Tool Co., Rockford, Ill. (Aircraft rivet squeezers, hand seamers, hammers, punches, rivet sets, hand crimpers, awls)
 Wilder Mfg. Co., Inc., Carmel, Calif.
 Wyzenbeek & Staff, Inc., Chicago, Ill. (Hole cutters, saw attachments)

TOPS, CHIMNEY

See Caps and Tops, Chimney

TORCHES, BRAZING, CUTTING, WELDING AND OXY-ACETYLENE

Aeroil Products Co., Inc., South Hackensack, N. J.
 Air Reduction Sales Co., New York, N. Y.
 American Products Corp., Chicago, Ill.
 Bastian-Blessing Co., Chicago, Ill.
 Borm Mfg. Co., Elgin, Ill.
 Dockson Corp., Detroit, Mich.
 Ergolyte Mfg. Co., Philadelphia, Pa.
 Eutectic Welding Alloys Corp., Flushing, N. Y.
 Gas Arc Supply, Philadelphia, Pa.
 General Scientific Equipment Co., Philadelphia, Pa.
 Harris Calorific Co., Cleveland, Ohio.
 K-G Equipment Co. (Inc.), Allentown, Pa.
 Lee Co., K. O., Aberdeen, S. D.
 Lincoln Electric Co., Cleveland, O.
 Linde Air Products Co., New York, N. Y.
 Liquid Carbonic Corp., Industrial Gas Div., Chicago, Ill.
 Marquette Mfg. Co., Inc., Minneapolis, Minn.
 Mid-States Welder Mfg. Co., Chicago, Ill.
 Minn-Kota Foundry & Mfg. Co., Fargo, N. D.
 Modern Engineering Co., St. Louis, Mo.
 National Cylinder Gas Co., Chicago, Ill.
 Perco, Glendora, Calif.
 Reiner & Campbell Co., Inc., Newark, N. J.
 Sight Feed Generator Co., W. Alexandria, O.
 Smith Welding Equipment Corp., Minneapolis, Minn.
 Weldit, Inc., Detroit, Mich.

TORCHES, SOLDERING

Acet-A-Tips Co., Chicago, Ill.
 Air Reduction Sales Co., New York, N. Y.
 Bastian-Blessing Co., Chicago, Ill.
 Bernz Co., Otto, Rochester, N. Y.
 Clayton & Lambert Mfg. Co., Louisville, Ky.
 Dockson Corp., Detroit, Mich.
 Everhot Mfg. Co., Maywood, Ill.
 Fusion Engineering, Cleveland, Ohio.
 General Scientific Equipment Co., Philadelphia, Pa.
 Goss Gas Inc., Glenshaw, Pa.
 Harris Calorific Co., Cleveland, Ohio.
 Homes, Inc., Charles A., Baldwin, N. Y. (Gas)
 Insto-Gas Corp., Detroit, Mich.
 Johnson Gas Appliance Co., Cedar Rapids, Iowa.
 Lenk Mfg. Co., Boston, Mass.
 Linde Air Products Co., New York, N. Y.
 Liquid Carbonic Corp., Industrial Gas Div., Chicago, Ill.
 Marquette Mfg. Co., Inc., Minneapolis, Minn.
 Minn-Kota Foundry & Mfg. Co., Fargo, N. D.
 Modern Engineering Co., St. Louis, Mo.
 Mutual Liquid Gas & Equipment Co., Inglewood, Calif.
 National Cylinder Gas Co., Chicago, Ill.
 Perco, Glendora, Calif.
 Prepo Corp., Edgerton, Wis.
 Ransome Co., Emeryville, Calif.
 Reiner & Campbell Co., Inc., Newark, N. J.
 Reliable Gas Products Co., Cedar Rapids, Ia.
 Sanders, J. A., Fulton, N. Y.
 Sight Feed Generator Co., West Alexandria, Ohio.
 Smith Welding Equipment Corp., Minneapolis, Minn.
 Tinit Mfg. Co., Inc., Denver, Colo.
 Torit Mfg. Co., St. Paul, Minn.
 Turner Brass Works, Sycamore, Ill.
 Unique Mfg. Co., Inc., Chicago, Ill.
 Velocity-Power Tool Co., Pittsburgh, Pa.
 Weldit, Inc., Detroit, Mich.

TOWERS, COOLING, ATMOSPHERIC

Binks Mfg. Co., Chicago, Ill.

Dover Mfg. Co., Independence, Mo.
 Fluor Corp., Ltd., The, Los Angeles, Calif.
 Harry Cooling Towers, Inc., New York, N. Y.
 Heatcraft Co., Louisville, Ky.
 Lillie-Hoffman Cooling Towers, Inc., St. Louis, Mo.
 Marley Co., The, Kansas City, Mo.
 New England Cooling Tower Co., Quincy, Mass.
 Pennsylvania Engineering Corp., New Castle, Pa.
 Phillips Cooling Tower Co., Inc., Brooklyn, N. Y.
 Pritchard & Co., J. F., of California, Div. of J. F. Pritchard & Co., Kansas City, Mo.
 Santa Fe Tank & Tower Co., Los Angeles, Calif.
 Stewart Ice Machine Co., Pomona, Calif.
 Tounge & Coats, Austin, Tex.
 United Cooling Tower Co., Kansas City, Mo.
 Water Cooling Corp., New York, N. Y.
 Water Cooling Equipment Corp., St. Louis, Mo.
 Water Cooling Tower Co., Chicago, Ill.
 Wheeler Mfg. Co., C. H., Philadelphia, Pa.

TOWERS, COOLING, MECHANICAL DRAFT

Acme Equipment Co., of Oklahoma, Inc., Muskogee, Okla.
 Acme Industries Inc., Jackson, Mich.
 Ayres, Inc., Houston, Tex.
 Baltimore Aircoil Co., Inc., Baltimore, Md.
 Beck Mfg. Co., New Albany, Ind.
 Binks, Mfg. Co., Chicago, Ill.
 Buensod-Stacey, Inc., New York, N. Y.
 Bush Mfg. Co., West Hartford, Conn.
 Carrier Corp., Syracuse, N. Y.
 Clime-Matic Corp., South Norwalk, Conn.
 Cool-Ette, Inc., Detroit, Mich.
 Crowell & Dunn, Inc., New York, N. Y.
 Curtis Refrigerating Machine Div., Curtis Mfg. Co., St. Louis, Mo.
 Dover Mfg. Co., Independence, Mo.
 Drayer-Hanson, Inc., Los Angeles, Calif.
 Flight Mfg. Corp., Camden, N. J.
 Fluor Corp., Ltd., The, Los Angeles, Calif.
 Goodfellow Co., Inc., E. D., Memphis, Tenn.
 Governair Corp., Oklahoma City, Okla.
 Halstead & Mitchell, Pittsburgh, Pa.
 Harry Cooling Towers, Inc., New York, N. Y.
 Havens Structural Steel Co., Kansas City, Mo.
 Heatcraft Co., Louisville, Ky.
 Kennard Corp., St. Louis, Mo.
 Kramer-Trenton Co., Trenton, N. J.
 Larkin Coils, Inc., Atlanta, Ga.
 Lillie-Hoffman Cooling Towers, Inc., St. Louis, Mo.
 Marley Co., The, Kansas City, Mo.
 Marlo Coil Co., St. Louis, Mo.
 McQuay, Inc., Minneapolis, Minn.
 Morris Sheet Metal Works, Columbus, O.
 New England Cooling Tower Co., Quincy, Mass.
 Niagara Products Co., Phoenix, Ariz.
 Pennsylvania Engineering Corp., New Castle, Pa.
 Phillips Cooling Tower Co., Inc., Brooklyn, N. Y.
 Pritchard & Co., J. F., of California, Div. of J. F. Pritchard & Co., Kansas City, Mo.
 Refrigeration Engineering, Inc., Los Angeles, Calif.
 Santa Fe Tank & Tower Co., Los Angeles, Calif.
 Silvercraft, Inc., Louisville, Ky.
 Sun-Fire Stoker Corp., New Albany, Ind.
 Tounge & Coats, Austin, Tex.
 Union Asbestos & Rubber Co., Chicago, Ill.
 United Cooling Tower Co., Kansas City, Mo.
 Vogt Machine Co., Henry, Louisville, Ky.
 Water Cooling Corp., New York, N. Y.
 Water Cooling Equipment Corp., St. Louis, Mo.
 Water Cooling Tower Co., Chicago, Ill.
 Wheeler Mfg. Co., C. H., Philadelphia, Pa.
 Worthington Corp., Harrison, N. J.

TRANSFORMERS, IGNITION

Dongan Electric Mfg. Co., Detroit, Mich.
 Dormeyer Industries, Chicago, Ill.
 General Electric Co., Apparatus Sales Div., Schenectady, N. Y.
 Harvey, Inc., Sid., Valley Stream, N. Y.
 HomeEase Products Div., Inc., Bogue Electric Mfg. Co., Paterson, N. J.
 Jefferson Electric Co., Bellwood, Ill.
 Magnex Corp., Jamaica, N. Y.
 Norris-Thermador Corp., Los Angeles, Calif.
 Nu-Way Corp., The, Rock Island, Ill.
 Union Spring & Mfg. Co., Jersey City, N. J.
 Webster Electric Co., Racine, Wis.

TRANSFORMERS, LOW VOLTAGE

Acme Electric Corp., Cuba, N. Y.
Barber-Colman Co., Rockford, Ill.
Crown Controls Co., Inc., New Bremen, Ohio.
Dongan Electric Mfg. Co., Detroit, Mich.
Dormeyer Industries, Chicago, Ill.
Eisler Engineering Co., Newark, N. J.
General Controls Co., Glendale, Calif.
General Electric Co., Apparatus Sales Div., Schenectady, N. Y.
Hercules Electric & Mfg. Co., Inc., Brooklyn, N. Y.
Jefferson Electric Co., Bellwood, Ill.
Mercoind Corp., Chicago, Ill.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Norris-Thermador Corp., Los Angeles, Calif.
NuTone, Inc., Cincinnati, O.
Taylor-Winfield Corp., Warren, Ohio.
Union Spring & Mfg. Co., Jersey City, N. J.
Wagner Electric Corp., St. Louis, Mo.
Westinghouse Electric Corp., Pittsburgh, Pa.

TRANSMISSIONS, VARIABLE SPEED

Allis-Chalmers Mfg. Co., Milwaukee, Wis.
American Pulley Co., Philadelphia, Pa.
Dodge Mfg. Corp., Mishawaka, Ind.
Lewellen Mfg. Co., Columbus, Ind.
Lima Electric Motor Co., The, Lima, O.
Lovejoy Flexible Coupling Co., Chicago, Ill.
Philadelphia Gear Works, Inc., Philadelphia, Pa.
Reliance Electric & Engineering Co., Cleveland, Ohio.
Sterling Electric Motors, Inc., Los Angeles, Calif.
U. S. Electrical Motors, Inc., Los Angeles, Calif.

TRIM, ORNAMENTAL

See Moulding and Trim, Ornamental

TRUCK BODIES

See Bodies and Accessories, Truck

TRUCKS, MOTOR

Chevrolet Motor Div. General Motors Corp., Detroit, Mich.
Dodge Div., Chrysler Corp., Detroit, Mich.
Ford Motor Co., Dearborn, Mich.
GMC Truck & Coach Div., General Motors Corp., Pontiac, Mich.
International Harvester Co., Truck Div., Chicago, Ill.

TRUCKS, WAREHOUSE

Big Joe Mfg. Co., Chicago, Ill.
Elwell-Parker Electric Co., Cleveland, O.
Lanson Mobilift Corp., Portland, Ore. (Lift)
Marion Metal Products, Marion, O.
Yale & Towne Mfg. Co., The, Philadelphia, Pa.

TUBING, ALUMINUM

Aluminum Co. of America, Pittsburgh, Pa.
American Brass Co., Waterbury, Conn.
Downs-Smith Brass & Copper Co., Inc., New York, N. Y.
Harvey Machine Co., Inc., Torrence, Calif.
Kaiser Aluminum & Chemical Corp., Oakland, Calif.
Lewin-Mathes, Lewis Metals Div., St. Louis, Mo.
Penn Brass & Copper Co., Erie, Pa.
Revere Copper & Brass Inc., New York, N. Y.
Reynolds Metals Co., Louisville, Ky.
United Wire & Supply Corp., Providence, R. I.
Wolverine Tube Div., Calumet & Hecla, Inc., Detroit, Mich.

TUBING, COPPER

American Brass Co., Waterbury, Conn.
Brass & Copper Import, Inc., New York, N. Y.
Bridgeport Brass Co., Bridgeport, Conn.
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Conklin Brass & Copper Co., Inc., T. E., New York, N. Y.
Downs-Smith Brass & Copper Co., Inc., New York, N. Y.
Hussey & Co., C. G., Pittsburgh, Pa.
Kensico Tube Co., Mt. Kisco, N. Y.
Lewin-Mathes Co., Lewin Metals Div., St. Louis, Mo.
Mueller Brass Co., Port Huron, Mich.
Penn Brass & Copper Co., Erie, Pa.
Phelps Dodge Copper Products Corp., British American Tube Div., New York, N. Y.
Revere Copper & Brass Inc., New York, N. Y.
United Wire & Supply Corp., Providence, R. I.
Wolverine Tube Div., Calumet & Hecla, Inc., Detroit, Mich.

TUBING, NICKEL AND NICKEL ALLOY

Bundy Tubing Co., Detroit, Mich.
Downs-Smith Brass & Copper Co., Inc., New York, N. Y.
International Nickel Co., Inc., New York, N. Y.
Revere Copper & Brass Inc., New York, N. Y.
Wolverine Tube Div., Calumet & Hecla, Inc., Detroit, Mich.
Youngstown Welding & Engineering Co., Youngstown, O. (Monel)

TUBING, PLASTIC

Acadia Synthetic Products Div., Western Felt Works, Chicago, Ill.
American Agile Corp., Bedford, O.
Aqua-Therm, Inc., Dayton, O.
American Hard Rubber Co., New York, N. Y.
Carlton Products, Cleveland, Ohio.
Commercial Plastics Co., Chicago, Ill.
Continental-Diamond Fibre Co., Newark, Del.
General Electric Co., Chemical and Metallurgical Div., Pittsfield, Mass.
Haveg Corp., Newark, Del.
Irvington Varnish & Insulator Div., Minnesota Mining & Mfg. Co., Irvington, N. J.
Mills Corp., Elmer E., Chicago, Ill.
Mueller Brass Co., Port Huron, Mich.
Pacific States Felt & Mfg. Co., Inc., San Francisco, Calif.
Panelyte Div., St. Regis Paper Co., New York, N. Y.
Plastex Corp., Columbus, O.
Republic Steel Corp., Cleveland, O.
Sandee Mfg. Co., Chicago, Ill.
Saran Lined Pipe Co., Fernald, Mich.
Van Dorn Iron Works, Cleveland, O.
Yardley Plastics Co., Columbus, O.

TUBING, STEEL

Armco Steel Corp., Middletown, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Bundy Tubing Co., Detroit, Mich.
Crucible Steel Co., Pittsburgh, Pa.
Dieckmann Co., Ferdinand, Cincinnati, Ohio. (Galv. speaking tube)
H-P Products, Inc., Louisville, O.
Jones & Laughlin Steel Corp., Pittsburgh, Pa.
Laclede Steel Co., St. Louis, Mo.
Michigan Steel Tube Products Co., Detroit, Mich.
National Tube Div., U. S. Steel Corp., Pittsburgh, Pa.
Republic Steel Corp., Cleveland, Ohio.
Revere Copper & Brass, Inc., New York, N. Y. (Welded)
Sharon Steel Corp., Sharon, Pa.
Steel & Tubes Div., Republic Steel Corp., Cleveland, Ohio.
Timken Roller Bearing Co., Canton, Ohio.
Wolverine Tube Div., Calumet & Hecla, Inc., Detroit, Mich.
Youngstown Sheet & Tube Co., Youngstown, Ohio.

TUBING, STEEL, STAINLESS

Allegheny-Ludlum Steel Corp., Pittsburgh, Pa.
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Crucible Steel Co., Pittsburgh, Pa.
Michigan Steel Tube Products Co., Detroit, Mich.
National Tube Div., U. S. Steel Corp., Pittsburgh, Pa.
Republic Steel Corp., Cleveland, Ohio.
Steel & Tubes Div., Republic Steel Corp., Cleveland, Ohio.
Timken Roller Bearing Co., Canton, Ohio.
Youngstown Welding & Engineering Co., Youngstown, O.

TURNING VANES

See Vanes, Duct Turning

UNIT HEATERS

See Heaters, Unit

UNITS, AIR CONDITIONING, CENTRAL PLANT, RESIDENTIAL, SUMMER ONLY, CONSISTING OF BLOWER, FILTER AND COOLING COIL

With Connection to Remote Condensing Unit or Cold Water Supply for Duct Distribution of Air

Air Conditioning Engineering Co., Cambridge, Mass.
Airtemp Div., Chrysler Corp., Dayton, Ohio
American Furnace Co., St. Louis, Mo.
Bush Mfg. Co., West Hartford, Conn.
Carrier Corp., Syracuse, N. Y.
Clarage Fan Co., Kalamazoo, Mich.
Coleman Co., Inc., Wichita, Kans.
Curtis Refrigerating Machine Div., Curtis Mfg. Co., St. Louis, Mo.
Drayer-Hanson, Inc., Los Angeles, Calif.
Governair Corp., Oklahoma City, Okla.
Hastings Air Conditioning Co., Inc., Hastings, Nebr.

Hastings Air Control, Inc., Omaha, Nebr.
 Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill.
 Iron Fireman Mfg. Co., Cleveland, O.
 Kennard Corp., St. Louis, Mo.
 Kramer Trenton Co., Trenton, N. J.
 Larkin Coils, Inc., Atlanta, Ga.
 Marlo Coil Co., St. Louis, Mo.
 McQuay, Inc., Minneapolis, Minn.
 Meyer Furnace Co., Peoria, Ill.
 Mueller Climatrol, Milwaukee, Wis.
 Peerless Furnace & Foundry Co., Indianapolis, Ind.
 Refrigeration Economics Co., Inc., Canton, Ohio.
 Round Oak Co., Inc., Dowagiac, Mich.
 Superior Furnace & Mfg. Co., Plymouth, Mich.
 Typhoon Air Conditioning Co., Inc., Brooklyn, N. Y.
 United States Air Conditioning Corp., Minneapolis, Minn.
 Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va.
 Williamson Heater Co., Cincinnati, O.
 York Corp., York, Pa.
 York-Shipley, Inc., York, Pa.

UNITS, AIR CONDITIONING, CENTRAL PLANT, RESIDENTIAL, SUMMER ONLY, CONSISTING OF CONDENSING UNIT, BLOWER, FILTER, AND COOLING COIL

For Connection to Existing Warm Air System

Addison Products Co., Addison, Mich.
 Air Conditioning Engineering Co., Cambridge, Mass.
 Airtemp Div., Chrysler Corp., Dayton, Ohio
 Airtrol Corp., Holland, O.
 American Furnace Co., St. Louis, Mo.
 Armstrong Furnace Co., Columbus, O.
 Automatic Firing Corp., St. Louis, Mo.
 Bal-Air, Inc., Nashville, Tenn.
 Barkow Mfg. Co., Inc., Aug. G., Milwaukee, Wis.
 Besser Metal Products Corp., Charlotte, N. C.
 Bishop & Babcock Mfg. Co., Cleveland, O.
 Blissfield Mfg. Co., Blissfield, Mich.
 Brunner Mfg. Co., Utica, N. Y.
 Bryant Heater Div., Affiliated Gas Equipment, Inc., Cleveland, O.
 Carrier Corp., Syracuse, N. Y.
 Clime-Matic Corp., South Norwalk, Conn.
 Coleman Co., Inc., Wichita, Kans.
 Columbia Specialty Co., Inc., Chevy Chase, Md.
 Conco Engineering Works, Heating Div., Mendota, Ill.
 Cool-Ette, Inc., Detroit, Mich.
 Curtis Refrigerating Machine Div., Curtis Mfg. Co., St. Louis, Mo.
 Deering Air Conditioning Co., Cincinnati, O.
 Farquhar Furnace Co., Wilmington, O.
 Forest City Foundries Co., Niagara Furnace Div., Cleveland, O.
 Fresh'nd-Aire Co., Div. of Cory Corp., Chicago, Ill.
 Frigidaire Div., G. M. Corp., Dayton, Ohio
 Front Rank Furnace Co., St. Louis, Mo.
 General Appliance Corp., Greenville, Mich.
 General Electric Co., Air Conditioning Div., Bloomfield, N. J.
 Governair Corp., Oklahoma City, Okla.
 Hastings Air Conditioning Co., Inc., Hastings, Nebr.
 Hastings Air Control, Inc., Omaha, Nebr.
 Heil Co., Milwaukee, Wis.
 Henry Furnace Co., Medina, O.
 Hess Co., The, Chicago, Ill.
 Hupp Corp., Globe Stamping Div., Cleveland, O.
 Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill.
 International Heater Co., Utica, N. Y.
 Iron Fireman Mfg. Co., Cleveland, O.
 Lennox Furnace Co., Marshalltown, Iowa
 Lipman Refrigeration Div., Yates-American Machine Co., Beloit, Wis.
 Made-Rite Co., Inc., Newport, Ky.
 Majestic Co., Inc., Huntington, Ind.
 Mayflower Air Conditioners, Inc., St. Paul, Minn.
 Meyer Furnace Co., Peoria, Ill.
 Midwest Automatic Control Co., Des Moines, Ia.
 Mitchell Mfg. Co., Chicago, Ill.
 Morrison Steel Products, Inc., Buffalo, N. Y.
 Mueller Climatrol, Milwaukee, Wis.
 Muncie Gear Works, Inc., Muncie, Ind.
 Norman Products Co., Inc., Columbus, O.
 Olsen Mfg. Co., The C. A., Elyria, O.
 Patten Co., J. V., Sycamore, Ill.
 Peerless Furnace & Foundry Co., Indianapolis, Ind.
 Penn Boiler & Burner Mfg. Corp., Lancaster, Pa.
 Pennsylvania Furnace & Iron Co., Warren, Pa.
 Perfection Stove Co., Cleveland, O.

Philco Corp., Philadelphia, Pa.
 Quiet-Air Mfg. Div., Abco Refrigeration Supply Co., New York, N. Y.
 Quiet-Heat Mfg. Corp., Subsidiary of Emerson Radio & Phonograph Corp., Newark, N. J.
 Refrigeration Economics, Inc., Canton, O.
 Richmond Radiator Co., Affil. Reynolds Metals Co., Metuchen, N. J.
 Round Oak Co., Inc., Dowagiac, Mich.
 Rybolt Heater Co., Ashland, O.
 Schnacke, Inc., Evansville, Ind.
 Servel, Inc., Evansville, Ind.
 Shana Mfg. Co., Chicago, Ill.
 Smith Corp., A. O., Permaglas Div., Kankakee, Ill.
 Sterling Air Conditioning Corp., Gastonia, N. C.
 Stewart-Warner Corp., U. S. Machine Div., Lebanon, Ind.
 Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
 Sunwarm, Inc., Kingsport, Tenn.
 Superior Furnace & Mfg. Co., Plymouth, Mich.
 Surface Combustion Corp., Toledo, O.
 Sutton Corp., O. A., Wichita, Kans.
 Thatcher Furnace Co., Garwood, N. J.
 Timken Silent Automatic Div., Rockwell Spring and Axle Co., Jackson, Mich.
 Typhoon Air Conditioning Co., Inc., Brooklyn, N. Y.
 Ultrasonic Corp., Cambridge, Mass.
 Union Asbestos & Rubber Co., Chicago, Ill.
 United States Air Conditioning Corp., Minneapolis, Minn.
 Utility Appliance Corp., Los Angeles, Calif.
 Viking Mfg. Corp., Cleveland, O.
 Waterman-Waterbury Co., Minneapolis, Minn.
 Westinghouse Elec. Corp., Air Conditioning Div., Staunton, Va.
 Whitehall Engineering Co., Chicago, Ill.
 Williams Div., Eureka-Williams Co., Div. of Henney Motor Co., Inc., Bloomington, Ill.
 Williamson Heater Co., Cincinnati, O.
 Worthington Corp., Harrison, N. J.
 York Corp., York, Pa.
 York-Shipley, Inc., York, Pa.
 Young Radiator Co., Racine, Wis.

UNITS, AIR CONDITIONING, CENTRAL PLANT, RESIDENTIAL, SUMMER ONLY, CONSISTING OF COOLING COIL, FILTER AND CONDENSING UNIT

For Connection to Existing Warm Air Heating System

Air Conditioning Engineering Co., Cambridge, Mass.
 Airtemp Div., Chrysler Corp., Dayton, O.
 American Furnace Co., St. Louis, Mo.
 Bal-Air, Inc., Nashville, Tenn.
 Barkow Mfg. Co., Inc., Aug. G., Milwaukee, Wis.
 Besser Metal Products Corp., Charlotte, N. C.
 Brunner Mfg. Co., Utica, N. Y.
 Carrier Corp., Syracuse, N. Y.
 Century Engineering Corp., Cedar Rapids, Ia.
 Coleman Co., Inc., Wichita, Kans.
 Columbia Specialty Co., Inc., Chevy Chase, Md.
 Conco Engineering Works, Heating Div., Mendota, Ill.
 Cool-Ette, Inc., Detroit, Mich.
 Curtis Refrigerating Machine Div., Curtis Mfg. Co., St. Louis, Mo.
 Deering Air Conditioning Co., Cincinnati, O.
 Delta Heating Corp., Trenton, N. J.
 Forest City Foundries Co., Niagara Furnace Div., Cleveland, O.
 Forston Co., Houston, Tex.
 Front Rank Furnace Co., St. Louis, Mo.
 General Electric Co., Air Conditioning Div., Bloomfield, N. J.
 Gibson Refrigerator Co., Greenville, Mich.
 Green Colonial Furnace Co., Des Moines, Ia.
 Hastings Air Control, Inc., Omaha, Nebr.
 Heating Equipment Mfg. Co., San Francisco, Calif.
 Henry Furnace Co., Medina, O.
 Hupp Corp., Globe Stamping Div., Cleveland, O.
 Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill.
 Iron Fireman Mfg. Co., Cleveland, O.
 Lennox Furnace Co., Marshalltown, Ia.
 Lincoln Furnace Co., Inc., Hawthorne, N. J.
 Lipman Refrigeration Div., Yates-American Machine Co., Beloit, Wis.
 McDonald Mfg. Co., A. Y., Dubuque, Ia.
 Meyer Furnace Co., Peoria, Ill.
 Melchior, Armstrong, Dessau Co., Ridgefield, N. J.
 Moncrief Furnace Co., Atlanta, Ga.
 Mueller Climatrol, Milwaukee, Wis.
 Muncie Gear Works, Inc., Muncie, Ind.

Norge Heat Div., Borg-Warner Corp., Kalamazoo, Mich.
 Olsen Mfg. Co., The C. A., Elyria, O.
 Peerless Furnace and Foundry Co., Indianapolis, Ind.
 Primor Products, Inc., Adrian, Mich.
 Refrigeration Economics, Inc., Canton, O.
 Round Oak Co., Inc., Dowagiac, Mich.
 Sterling Air Conditioning Corp., Gastonia, N. C.
 Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
 Superior Furnace & Mfg. Co., Plymouth, Mich.
 Sutton Corp., O. A., Wichita, Kans.
 Thatcher Furnace Co., Garwood, N. J.
 Typhoon Air Conditioning Co., Inc., Brooklyn, N.Y.
 Union Asbestos & Rubber Co., Chicago, Ill.
 United States Air Conditioning Corp., Minneapolis, Minn.
 United States Radiator Corp., Detroit, Mich.
 Viking Mfg. Corp., Cleveland, O.
 Waterman-Waterbury Co., Minneapolis, Minn.
 Westinghouse Elec. Corp., Air Conditioning Div., Staunton, Va.
 Williams Div., Eureka-Williams Co., Div. of Henney Motor Co., Inc., Bloomington, Ill.
 Williamson Heater Co., Cincinnati, O.
 Worthington Corp., Harrison, N.J.
 York Corp., York, Pa.
 York-Shipley, Inc., York, Pa.

UNITS, AIR CONDITIONING, CENTRAL PLANT, RESIDENTIAL, SUMMER-WINTER

Consisting of Blower, Filter, Humidifier, Direct Fired Warm Air Furnace, Cooling Coil and Condensing Unit for Duct Distribution of Air

Air Conditioning Engineering Co., Cambridge, Mass. (Gas or oil)
 Airtemp Div., Chrysler Corp., Dayton, O. (Gas)
 American Furnace Co., St. Louis, Mo. (Gas)
 Armstrong Furnace Co., Columbus, O. (Gas or oil)
 Automatic Firing Corp., St. Louis, Mo. (Gas or oil)
 Besser Metal Products Corp., Charlotte, N. C. (Oil)
 Bryant Heater Div., Affiliated Gas Equipment, Inc., Cleveland, O. (Gas or oil)
 Coleman Co., Inc., Wichita, Kans.
 Crane Co., Chicago, Ill. (Gas or oil)
 Curtis Refrigerating Machine Div., Curtis Mfg. Co., St. Louis, Mo.
 Delco Appliance Div., General Motors Corp., Rochester, N. Y. (Gas or oil)
 Delta Heating Corp., Trenton, N. J. (Gas or oil)
 Dualtron Co., Pittsburgh, Pa. (Gas or oil)
 Farquahar Furnace Co., Wilmington, O. (Gas or oil)
 Frigidaire Div., General Motors Corp., Dayton, O. (Gas or oil)
 Front Rank Furnace Co., Div. Liberty Foundry Co., St. Louis, Mo. (Gas or oil)
 General Electric Co., Air Conditioning Div., Bloomfield, N. J. (Gas or oil)
 Heating Equipment Mfg. Co., San Francisco, Calif. (Gas)
 Henry Furnace Co., Medina, O. (Gas or oil)
 Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill. (Oil or gas)
 International Sales Co., San Francisco, Calif. (Gas)
 Lennox Furnace Co., Marshalltown, Ia. (Gas)
 Majestic Co., Inc., Huntington, Ind. (Gas or oil)
 Mayflower Air Conditioners, Inc., St. Paul, Minn. (Oil or gas)
 Meyer Furnace Co., Peoria, Ill. (Oil or gas)
 Moncrief Furnace Co., Atlanta, Ga. (Gas)
 Mueller Climatrol, Milwaukee, Wis. (Gas or oil)
 Olsen Mfg. Co., The C. A., Elyria, O.
 Paragon Oil Burner Corp., Brooklyn, N. Y. (Oil)
 Peerless Furnace & Foundry Co., Indianapolis, Ind. (Gas or oil)
 Ralph Mfg. Co., Inc., Wadsworth, O.
 Rheem Mfg. Co., Chicago, Ill.
 Round Oak Co., Inc., Dowagiac, Mich.
 Shana Mfg. Co., Chicago, Ill. (Gas or oil)
 Skinner Heating & Ventilating Co., Div. St. Louis Blow Pipe & Heater Co., Inc., St. Louis, Mo. (Gas or oil)
 Sterling Air Conditioning Corp., Gastonia, N. C. (Gas or oil)
 Smith Corp., A. O., Permaglas Div., Kankakee, Ill. (Gas or oil)
 Southwest Mfg. Co., Aurora, Mo. (Gas)
 Superior Furnace & Mfg. Co., Plymouth, Mich. (Gas or oil)
 Surface Combustion Corp., Toledo, O.
 Timken Silent Automatic Div., Rockwell Spring and Axle Co., Jackson, Mich. (Gas)
 Typhoon Air Conditioning Co., Inc., Brooklyn, N. Y. (Gas or oil)
 United States Air Conditioning Co., Minneapolis, Minn. (Gas)
 United States Radiator Corp., Detroit, Mich. (Gas or oil)
 Waterman-Waterbury Co., Minneapolis, Minn. (Gas or oil)

Williamson Heater Co., Cincinnati, O. (Gas or oil)
 Worthington Corp., Harrison, N. J. (Gas or oil)
 York Corp., York, Pa. (Gas or oil)

UNITS, AIR CONDITIONING, CENTRAL PLANT, RESIDENTIAL, SUMMER-WINTER, FOR REMOTE CONDENSING UNIT OR COLD WATER SUPPLY

Consisting of Blower, Filter, Humidifier, Direct Fired Warm Air Furnace and Cooling Coil for Duct Distribution of Air

Air Conditioning Engineering Co., Cambridge, Mass. (Gas or oil)
 Airtemp Div., Chrysler Corp., Dayton, O. (Oil)
 Besser Metal Products Corp., Charlotte, N. C. (Oil)
 Carrier Corp., Syracuse, N. Y. (Gas or oil)
 Coleman Co., Inc., Wichita, Kans.
 Curtis Refrigerating Machine Div., Curtis Mfg. Co., St. Louis, Mo.
 Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill. (Oil or gas)
 Meyer Furnace Co., Peoria, Ill. (Gas or oil)
 Mueller Climatrol, Milwaukee, Wis. (Gas or oil)
 Peerless Furnace and Foundry Co., Indianapolis, Ind. (Oil or gas)
 Round Oak Co., Inc., Dowagiac, Mich. (Oil or gas)
 Superior Furnace & Mfg. Co., Plymouth, Mich. (Gas or oil)
 Typhoon Air Conditioning Co., Inc., Brooklyn, N. Y. (Oil or gas)
 Union Asbestos & Rubber Co., Chicago, Ill.
 Williamson Heater Co., Cincinnati, O.
 York Corp., York, Pa.

UNITS, AIR CONDITIONING, CENTRAL PLANT, RESIDENTIAL, SUMMER-WINTER, WITH HEAT PUMP

Consisting of Blower, Filter, Humidifier, Reverse Refrigeration Cycle, Heating Coil and Cooling Coil for Duct Distribution of Air

Acme Industries, Inc., Jackson, Mich.
 Air Cooler Corp., Electri-Aire Div., St. Louis, Mo.
 American Coils Co., Inc., Newark, N. J.
 General Electric Co., Air Cond. Div., Bloomfield, N. J.
 Muncie Gear Works, Inc., Muncie, Ind.
 Typhoon Air Conditioning Co., Inc., Brooklyn, N. Y.
 Westinghouse Elec. Corp., Air Conditioning Div., Staunton, Va.
 York Corp., York, Pa.

UNITS, AIR CONDITIONING, CENTRAL PLANT, RESIDENTIAL, SUMMER-WINTER, WITH STEAM GENERATOR

Consisting of Blower, Filter, Humidifier, Heating Coil and Cooling Coil for Duct Distribution of Air

Air Conditioning Engineering Co., Cambridge, Mass. (Gas or oil)
 Curtis Refrigerating Machine Div., Curtis Mfg. Co., St. Louis, Mo.
 Servel, Inc., Evansville, Ind. (Gas)
 York Corp., York, Pa.
 Young Radiator Co., Racine, Wis.

UNITS, AIR CONDITIONING, CENTRAL PLANT, RESIDENTIAL, SUMMER ONLY, HORIZONTALLY MOUNTED

Consisting of Blower, Filter, Cooling Coil and Condensing Unit for Duct Distribution of Air

Airtron Corp., Holland, O.
 Coleman Co., Inc., Wichita, Kans. (Gas)
 Forston Co., Houston, Tex.
 Lennox Furnace Co., Marshalltown, Ia.
 Norge Heat Div., Borg-Warner Corp., Kalamazoo, Mich.
 Peerless Furnace and Foundry Co., Indianapolis, Ind.
 Round Oak Co., Inc., Dowagiac, Mich.
 Shana Mfg. Co., Chicago, Ill.
 Southwest Mfg. Co., Aurora, Mo.
 Superior Furnace & Mfg. Co., Plymouth, Mich.
 Surface Combustion Corp., Toledo, O.
 Sutton Corp., O. A., Wichita, Kans.
 Viking Mfg. Corp., Cleveland, O.

UNITS, AIR CONDITIONING, CENTRAL PLANT, RESIDENTIAL, SUMMER-WINTER HORIZONTALLY MOUNTED

Consisting of Blower, Filter, Direct Fired, Warm Air Furnace, Cooling Coil and Condensing Unit for Duct Distribution of Air

Armstrong Furnace Co., Columbus, O. (Gas or oil)
 Besser Metal Products Corp., Charlotte, N. C. (Oil)
 Bryant Heater Div., Affiliated Gas Equipment, Inc., Cleveland, O.

General Electric Co., Air Conditioning Div., Bloomfield, N. J.
(Gas or oil)
Heil Co., Milwaukee, Wis. (Gas or oil)
Marvaire Div., Muncie Gear Works, Inc., Muncie, Ind.
Peerless Furnace and Foundry Co., Indianapolis, Ind. (Gas or oil)
Round Oak Co., Inc., Dowagiac, Mich.
United States Radiator Corp., Detroit, Mich.
Westinghouse Electric Corp., Electric Appliance Div., Springfield, Mass.
Williamson Heater Co., Cincinnati, O.

UNITS, AIR CONDITIONING, CENTRAL PLANT, RESIDENTIAL, WINTER ONLY, CONSISTING OF FURNACE, BLOWER, FILTER AND HUMIDIFIER

See furnaces, forced warm air

UNITS, AIR CONDITIONING, CENTRAL PLANT, RESIDENTIAL, WINTER ONLY, FOR SPLIT SYSTEM

Consisting of Blower, Filter, Humidifier, Heating Coil and Connection to Remote Steam or Hot Water Boiler for Duct Distribution of Air

Air Conditioning Engineering Co., Cambridge, Mass.
Airtemp Div., Chrysler Corp., Dayton, Ohio
Buffalo Forge Co., Buffalo, N. Y.
Bush Mfg. Co., West Hartford, Conn.
Clarage Fan Co., Kalamazoo, Mich.
Curtis Refrigerating Machine Div., Curtis Mfg. Co., St. Louis, Mo.
Drayer-Hanson, Inc., Los Angeles, Calif.
Hastings Air Conditioning Co., Inc., Hastings, Nebr.
Johnson Co., S. T., Oakland, Calif., and Philadelphia, Pa.
Kennard Corp., St. Louis, Mo.
Marlo Coil Co., St. Louis, Mo.
Refrigeration Economics Co., Inc., Canton, Ohio.
Typhoon Air Conditioning Co., Inc., Brooklyn, N. Y.
Union Asbestos & Rubber Co., Chicago, Ill.
United States Air Conditioning Corp., Minneapolis, Minn.
Western Blower Co., Seattle, Wash.
Westinghouse Elec. Corp., Air Conditioning Div., Staunton, Va.

UNITS, AIR CONDITIONING, CENTRAL SYSTEM, EVAPORATIVE TYPE

For Duct Distribution of Air, Consisting of Blower, Filter, Pump, and Sprays or Mats (for cooling by evaporation)

Air & Refrigeration Corp., New York, N. Y.
Alton Mfg. Co., Dallas, Tex.
Barwick Mfg. Corp., Wichita, Kans.
Beyer Metal Products Co., Rosamond, Calif.
Dry & Sons, J. R., Winters, Tex.
Essick Mfg. Co., Los Angeles, Calif.
Fyne Aire Mfg. Co., Dallas, Tex.
Hayes Furnace Mfg. & Supply Co., Los Angeles, Calif.
Heating Assurance, Inc., Spokane, Wash.
International Metal Products Co., Phoenix, Ariz.
Kleer-Kleen Mfg. Co., Hayward, Calif.
National Engineering & Mfg. Co., Sedalia, Mo.
Southwest Mfg. Co., Aurora, Mo.
Wright Mfg. Co., Phoenix, Ariz.

UNITS, AIR CONDITIONING, ROOM TYPE, EVAPORATIVE

Consisting of Blower, Filter, Pump, and Sprays or Mats (for cooling by evaporation)

Air Cooling Engineering Co., Evanston, Ill.
Airfan Engineering Co., Los Angeles, Calif.
Alton Mfg. Co., Dallas, Texas.
American Cooling Tower Co., Kansas City, Mo.
Arizona Maintenance Co., Tucson, Ariz.
Auburn Foundry, Inc., Stoker Div., Auburn, Ind.
Barwick Mfg. Corp., Wichita, Kans.
Belmetals Mfg. Co., Belmont, Calif.
Beyer Metal Products Co., Rosamond, Calif.
Central States Mfg. Co., Inc., Arkansas City, Kans.
Climax Machinery Co., Indianapolis, Ind.
Comfort Products Corp., Dallas, Texas.
Dearborn Stove Co., Dallas, Texas.
Dry & Sons, J. R., Winters, Tex.
Essick Mfg. Co., Los Angeles, Calif.
Farr Co., Los Angeles, Calif.
Fyne Aire Mfg. Co., Dallas, Tex.
Heating Assurance, Inc., Spokane, Wash.
International Metal Products Co., Phoenix, Ariz.
Kleer-Kleen Mfg. Co., Hayward, Calif.

Lennox Furnace Co., Marshalltown, Ia.
Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
Montag Stove & Furnace Works, Portland, Ore.
Morey, Dan, Los Angeles, Calif.
Mountain States Equipment Co., Denver, Colo.
National Engineering & Mfg. Co., Sedalia, Mo.
National Gas Equipment Co., Inc., Denison, Tex.
Norris-Thermador Corp., Los Angeles, Calif.
Palmer Mfg. Corp., Phoenix, Ariz.
Pernot Corp., Norwalk, Calif.
Polaire Cooler Co., Inc., Phoenix, Ariz.
Reynolds Mfg. Co., Springfield, Mo.
Southwest Mfg. Co., Aurora, Mo.
Southern Air Conditioning Mfg. Co., Fort Worth, Texas.
Thompson Mfg. Co., A. F., Huntington, W. Va.
Trade-Wind Motorfans, Inc., Los Angeles, Calif.
United Electric Service Co., Wichita Falls, Tex.
Utility Appliance Corp., Los Angeles, Calif.
Wright Mfg. Co., Phoenix, Ariz.

UNITS, AIR CONDITIONING, ROOM TYPE, FLOOR CABINET, SUMMER ONLY

Consisting of Blower, Filter, Cooling Coil and Condensing Unit

Bal-Air, Inc., Nashville, Tenn.
Baltimore Porcelain Steel Corp., Baltimore, Md.
Burnham Corp., Irvington, N. Y.
Carrier Corp., Syracuse, N. Y.
Fedders-Quigan Corp., Buffalo, N. Y.
Hotpoint, Inc., Chicago, Ill.
Kauffman Air Conditioning Corp., St. Louis, Mo.
Made-Rite Co., Inc., Newport, Ky.
Mueller Climatrol, Milwaukee, Wis.
Remington Air Conditioning Div., Remington Corp., Auburn, N.Y.
Round Oak Co., Inc., Dowagiac, Mich.
Shana Mfg. Co., Chicago, Ill.
Stewart-Warner Corp., U. S. Machine Div., Lebanon, Ind.
Superior Furnace & Mfg. Co., Plymouth, Mich.
Typhoon Air Conditioning Co., Inc., Brooklyn, N. Y.
Union Asbestos & Rubber Co., Chicago, Ill.

UNITS, AIR CONDITIONING, ROOM TYPE, FLOOR CABINET, SUMMER ONLY, FOR REMOTE CONDENSING UNIT OR COLD WATER SUPPLY

Consisting of Blower, Filter and Cooling Coil

Bal-Air, Inc., Nashville, Tenn.
Buffalo Forge Co., Buffalo, N. Y.
Bush Mfg. Co., West Hartford, Conn.
Carrier Corp., Syracuse, N. Y.
Curtis Refrigerating Machine Div., Curtis Mfg. Co., St. Louis, Mo.
Drayer-Hanson, Inc., Los Angeles, Calif.
Hastings Air Conditioning Co., Inc., Hastings, Nebr.
International Mfg. Co., Oklahoma City, Okla.
Kauffman Air Conditioning Corp., St. Louis, Mo.
Kennard Corp., St. Louis, Mo.
Marlo Coil Co., St. Louis, Mo.
McQuay, Inc., Minneapolis, Minn.
Refrigeration Economics Co., Inc., Canton, Ohio.
Shana Mfg. Co., Chicago, Ill.
Superior Furnace & Mfg. Co., Plymouth, Mich.
United States Air Conditioning Corp., Minneapolis, Minn.
Worthington Corp., Harrison, N.J.
York Corp., York, Pa.
Young Radiator Co., Racine, Wis.

UNITS, AIR CONDITIONING, ROOM TYPE, FLOOR CABINET, SUMMER-WINTER

Consisting of Blower, Filter, Humidifier, and Heating and Cooling Coils for Connection to Steam or Hot Water Supply and Remote Condensing Unit or Cold Water Supply

Air Conditioning Engineering Co., Cambridge, Mass.
Bal-Air, Inc., Nashville, Tenn.
Buffalo Forge Co., Buffalo, N. Y.
Bush Mfg. Co., West Hartford, Conn.
Curtis Refrigerating Machine Div., Curtis Mfg. Co., St. Louis, Mo.
Drayer-Hanson, Inc., Los Angeles, Calif.
International Mfg. Co., Oklahoma City, Okla.
Kauffman Air Conditioning Corp., St. Louis, Mo.
Kennard Corp., St. Louis, Mo.
Marlo Coil Co., St. Louis, Mo.
McQuay, Inc., Minneapolis, Minn.
Refrigeration Economics Co., Inc., Canton, Ohio.

Typhoon Air Conditioning Co., Inc., Brooklyn, N. Y.
 United States Air Conditioning Corp., Minneapolis, Minn.
 Worthington Corp., Harrison, N. J.
 York Corp., York, Pa.
 Young Radiator Co., Racine, Wis.

UNITS, AIR CONDITIONING, ROOM TYPE, FLOOR CABINET, WINTER ONLY

Consisting of Blower, Filter, Humidifier, and Heating Coil for Connection to Remote Beller

Airtemp Div., Chrysler Corp., Dayton, O.
 Buffalo Forge Co., Buffalo, N. Y.
 Bush Mfg. Co., West Hartford, Conn.
 Curtis Refrigerating Machine Div., Curtis Mfg. Co., St. Louis, Mo.
 Drayer-Hanson, Inc., Los Angeles, Calif.
 Kauffman Air Conditioning Corp., St. Louis, Mo.
 Kennard Corp., St. Louis, Mo.
 Marlo Coil Co., St. Louis, Mo.
 Typhoon Air Conditioning Co., Inc., Brooklyn, N. Y.
 United States Air Conditioning Corp., Minneapolis, Minn.
 Worthington Corp., Harrison, N. J.
 Young Radiator Co., Racine, Wis.

UNITS, AIR CONDITIONING, ROOM TYPE, WINDOW, SUMMER ONLY

Consisting of Blower, Filter, Cooling Coil and Condensing Unit

Addison Products Co., Addison, Mich.
 Admiral Corp., Chicago, Ill.
 Air Conditioning Engineering Co., Cambridge, Mass.
 Airtemp Div., Chrysler Corp., Dayton, Ohio
 AlSCO Co., Akron, O.
 Amana Refrigeration, Inc., Amana, Ia.
 Automatic Firing Corp., St. Louis, Mo.
 Avco Mfg. Corp., Crosley and Bendix Home Appliances, Cincinnati, O.
 Bard Mfg. Co., Bryan, O.
 Blissfield Mfg. Co., Blissfield, Mich.
 Borg-Warner Corp., Hydraline Products Div., Detroit, Mich.
 Bryant Heating Div., Afil. Gas Equipment, Inc., Cleveland, Ohio
 Burnham Corp., Irvington, N. Y.
 Carrier Corp., Syracuse, N. Y.
 Cauhorn Distributing Co., Detroit, Mich.
 Coolerator Co., Duluth, Minn.
 Crane Co., Chicago, Ill.
 Cronstroms, Inc., Minneapolis, Minn.
 Curtis Refrigerating Machine Div., Curtis Mfg. Co., St. Louis, Mo.
 Dearborn Stove Co., Dallas, Tex.
 Deepfreeze Appliance Div., Motor Products Corp., North Chicago, Ill.
 Deering Air Conditioning Co., Cincinnati, Ohio
 Emerson Radio and Phonograph Corp., New York, N. Y.
 Fedders-Quigan Corp., Buffalo, N. Y.
 Firestone Industrial Products Co., Akron, O.
 Forston Co., Houston, Tex.
 Fresh'nd-Aire Co., Div. of Cory Corp., Chicago, Ill.
 Friedrich Refrigerators, Inc., San Antonio, Tex.
 Frigid, Inc., Brooklyn, N. Y.
 Frigidaire Div., General Motors Corp., Dayton, Ohio
 General Appliance Corp., Greenville, Mich.
 General Electric Co., Major Appliance Div., Room Air Conditioner Dept., Louisville, Ky.
 Gibson Refrigerator Co., Greenville, Mich.
 Hotpoint Co., Chicago, Ill.
 Hunter Fan & Ventilating Co., Memphis, Tenn.
 International Harvester Co., Truck Div., Chicago, Ill.
 Iron Fireman Mfg. Co., Cleveland, O.
 Jordan Refrigerator Co., Inc., Philadelphia, Pa.
 Kauffman Air Conditioning Corp., St. Louis, Mo.
 King Refrigerator Co., Glendale, N. Y.
 Larkin Coils, Inc., Atlanta, Ga.
 Lipman Refrigeration Div., Yates-American Machine Co., Beloit, Wis.
 Made-Rite Co., Inc., Newport, Ky.
 Magic Chef, Inc., St. Louis, Mo.
 Majestic Major Appliance Corp., Lima, O.
 Marquette Mfg. Co., Inc., Minneapolis, Minn.
 McQuay, Inc., Minneapolis, Minn.
 Mitchell Mfg. Co., Chicago, Ill.
 Mueller Climatrol, Milwaukee, Wis.
 National Steel Construction Co., Inc., Logansport, Ind.
 Noma Lites, Inc., New York, N. Y.
 Norge Heat Div., Borg-Warner Corp., Kalamazoo, Mich.
 Olympic Radio & Television, Inc., Long Island City, N. Y.

Packard-Bell Co., Bellair Room Air Conditioning Div., Los Angeles, Calif.

Perfection Stove Co., Cleveland, O.
 Philco Corp., Philadelphia, Pa.
 Quiet-Heat Mfg. Corp., Subsidiary of Emerson Radio and Phonograph Corp., Newark, N. J.
 Radio Corp. of America, Camden, N. J.
 Remington Air Cond. Div., Remington Corp., Auburn, N. Y.
 Rheem Mfg. Co., Chicago, Ill.
 Robbins & Myers, Inc., Springfield, O.
 Servel, Inc., Evansville, Ind.
 Sterling Air Conditioning Corp., Gastonia, N. C.
 Stewart-Warner Corp., U. S. Machine Div., Lebanon, Ind.
 Sub-Zero Freezer Co., Inc., Madison, Wis.
 Sutton Corp., O. A., Wichita, Kans.
 Tele King Corp., New York, N. Y.
 Typhoon Air Conditioning Co., Inc., Brooklyn 15, N. Y.
 Tywel Mfg. Corp., Brooklyn, N. Y.
 Union Asbestos & Rubber Co., Chicago, Ill.
 United Electric Service Co., Wichita Falls, Tex.
 United States Air Conditioning Corp., Minneapolis, Minn.
 United States Radiator Corp., Detroit, Mich.
 Universal Major Electric Appliances, Inc., Lima, O.
 Victor Products Corp., Hagerstown, Md.
 Viking Air Conditioning Div., National Radiator Co., Cleveland, O.
 Viking Mfg. Corp., Cleveland, O.
 Welbilt Stove Co., Inc., Maspeth, N. Y.
 Westinghouse Electric Corp., Electric Appliance Div., Springfield, Mass.
 Whitehall Engineering Co., Chicago, Ill.
 Worthington Corp., Harrison, N. J.
 York Corp., York, Pa.

UNITS, AIR CONDITIONING, ROOM TYPE, WINDOW, SUMMER-WINTER

Consisting of Blower, Filter, Cooling Coil, Condensing Unit and Heating Unit

Airtemp Div., Chrysler Corp., Dayton, O.
 Amana Refrigeration, Inc., Amana, Ia.
 Blissfield Mfg. Co., Blissfield, Mich.
 Cronstroms, Inc., Minneapolis, Minn.
 Fedders-Quigan Corp., Buffalo, N. Y.
 Fresh'nd-Aire Co., Div. of Cory Corp., Chicago, Ill.
 Frigidaire Div., General Motors Corp., Dayton, O.
 General Electric Co., Major Appliance Div., Room Air Conditioner Dept., Louisville, Ky.
 Gibson Refrigerator Co., Greenville, Mich.
 Hotpoint Co., Chicago, Ill.
 Iron Fireman Mfg. Co., Cleveland, O.
 Mitchell Mfg. Co., Chicago, Ill.
 National Steel Construction Co., Inc., Logansport, Ind.
 Perfection Stove Co., Cleveland, O.
 Quiet-Heat Mfg. Corp., Subsidiary of Emerson Radio and Phonograph Corp., Newark, N. J.
 Remington Air Conditioning Div., Remington Corp., Auburn, N. Y.
 Servel, Inc., Evansville, Ind.
 Sutton Corp., O. A., Wichita, Kans.
 Tele King Corp., New York, N. Y.
 United States Air Conditioning Corp., Minneapolis, Minn.
 Viking Mfg. Corp., Cleveland, O.

UNITS, AIR CONDITIONING, STORE TYPE, FLOOR CABINET, SUMMER ONLY

Consisting of Blower, Filter, Cooling Coil and Condensing Unit, with Air Discharge Approximately 6 ft Above Floor

Air Conditioning Engineering Co., Cambridge, Mass.
 Airtemp Div., Chrysler Corp., Dayton, Ohio.
 Alton Mfg. Co., Dallas, Tex.
 American Coils Co., Inc., Newark, N. J.
 Armstrong Furnace Co., Columbus, O.
 Automatic Firing Corp., St. Louis, Mo.
 Bal-Air, Inc., Nashville, Tenn.
 Bard Mfg. Co., Bryan, Ohio.
 Barkow Mfg. Co., Inc., Aug. G., Milwaukee, Wis.
 Bryant Heater Div., Affiliated Gas Equipment, Inc., Cleveland, O.
 Brunner Mfg. Co., Utica, N. Y.
 Carrier Corp., Syracuse, N. Y.
 Clime-Matic Corp., South Norwalk, Conn.
 Coleman Co., Inc., Wichita, Kans.
 Cool-Ette, Inc., Detroit, Mich.
 Curtis Refrigerating Machine Div., Curtis Mfg. Co., St. Louis, Mo.
 Deering Air Conditioning Co., Cincinnati, O.
 Frick Co., Waynesboro, Pa.

Frigidaire Div., General Motors Corp., Dayton, Ohio.
 General Appliance Corp., Greenville, Mich.
 General Electric Co., Air Conditioning Div., Bloomfield, N. J.
 Gibson Refrigerator Co., Greenville, Mich.
 Goveair Corp., Oklahoma City, Okla.
 Green Colonial Furnace Co., Des Moines, Ia.
 Hastings Air Conditioning Co., Inc., Hastings, Nebr.
 Henry Furnace Co., Medina, O.
 Hupp Corp., Globe Stamping Div., Cleveland, O.
 Jordan Refrigerator Co., Inc., Philadelphia, Pa.
 Kauffman Air Conditioning Corp., St. Louis, Mo.
 Koch Refrigerators Inc., North Kansas City, Mo.
 Lennox Furnace Co., Marshalltown, Ia.
 Lipman Refrigeration Div., Yates-American Machine Co., Beloit, Wis.
 Magic Chef, Inc., St. Louis, Mo.
 Melchior, Armstrong, Dessau Co., Ridgefield, N. J.
 Meyer Furnace Co., Peoria, Ill.
 Midwest Automatic Control Co., Des Moines, Ia.
 Mueller Climatrol, Milwaukee, Wis.
 Muncie Gear Works, Inc., Muncie, Ind.
 Olsen Mfg. Co., The C. A., Elyria, O.
 Peerless Furnace and Foundry Co., Indianapolis, Ind.
 Philco Corp., Philadelphia, Pa.
 Primor Products, Inc., Adrian, Mich.
 Quiet-Heat Mfg. Corp., Subsidiary of Emerson Radio and Phonograph Corp., Newark, N. J.
 Ralph Mfg. Co., Inc., Wadsworth, O.
 Rinehart, Inc., Richmond, Ind.
 Round Oak Co., Inc., Dowagiac, Mich.
 Servel, Inc., Evansville, Ind.
 Sterling Air Conditioning Corp., Gastonia, N. C.
 Stewart-Warner Corp., U. S. Machine Div., Lebanon, Ind.
 Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elvira, O.
 Superior Furnace & Mfg. Co., Plymouth, Mich.
 Surface Combustion Corp., Toledo, O.
 Sutton Corp., O. A., Wichita, Kans.
 Thatcher Furnace Co., Garwood, N. J.
 Typhoon Air Conditioning Co., Inc., Brooklyn, N. Y.
 Union Asbestos & Rubber Co., Chicago, Ill.
 United States Air Conditioning Corp., Minneapolis, Minn.
 United States Radiator Corp., Detroit, Mich.
 Viking Mfg. Corp., Cleveland, Ohio.
 Westinghouse Elec. Corp., Air Conditioning Div., Staunton, Va.
 Williams Div., Eureka-Williams Co., Div., of Henney Motor Co., Inc., Bloomington, Ill.
 Williamson Heater Co., Cincinnati, O.
 Worthington Corp., Harrison, N. J.
 York Corp., York, Pa.
 York-Shipley, Inc., York, Pa.

UNITS, AIR CONDITIONING, STORE TYPE, SUSPENDED CABINET, SUMMER ONLY

Consisting of Blower, Filter, Cooling Coil and Condensing Unit
 Air Conditioning Engineering Co., Cambridge, Mass.
 Airtemp Div., Chrysler Corp., Dayton, O.
 Bal-Air, Inc., Nashville, Tenn.
 Barkow Mfg. Co., Inc., Aug. G., Milwaukee, Wis.
 Besser Metal Products Corp., Charlotte, N. C.
 Union Asbestos & Rubber Co., Chicago, Ill.

VACUUM CLEANERS FOR FURNACES

See Cleaners, Vacuum, Furnace

VALVES, GAS, AUTOMATIC SHUT OFF

Control Engineering Corp., Norwood, Mass.
 Detroit Brass & Malleable Works, Detroit, Mich.
 Eclipse Fuel Engineering Co., Rockford, Ill.
 General Controls Co., Glendale, Calif.
 Milwaukee Gas Specialty Co., Milwaukee, Wis.
 Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Partlow Corp., New Hartford, N. Y.
 Penn Controls, Inc., Goshen, Ind.
 Perflex Corp., Milwaukee, Wis.
 Reynolds Gas Regulator Co., Anderson, Ind.
 Thermac Co., Los Angeles, Calif.
 White-Rodgers Electric Co., St. Louis, Mo.

VALVES, GAS, MOTORIZED

Eclipse Fuel Engineering Co., Rockford, Ill.
 General Controls Co., Glendale, Calif.
 Heat-Timer Corp., New York, N. Y.

Milwaukee Gas Specialty Co., Milwaukee, Wis.
 Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.

VALVES, GAS PRESSURE REGULATING

Black, Sivals & Bryson, Inc., Kansas City, Mo.
 Bristol Co., Waterbury, Conn.
 Control Engineering Corp., Norwood, Mass.
 Davis Regulator Co., Chicago, Ill.
 Defender Instrument & Regulator Co., St. Louis, Mo.
 Dockson Corp., Detroit, Mich.
 Eclipse Fuel Engineering Co., Rockford, Ill.
 Fisher Governor Co., Marshalltown, Iowa.
 Foster Engineering Co., Union, N. J.
 Gas & Oil Industry Laboratories, Inc., Irvington, N. J.
 General Controls Co., Glendale, Calif.
 Harris Calorific Co., Cleveland, Ohio.
 Hubbell Corp., Mundelein, Ill.
 Maxitrol Co., Detroit, Mich.
 Mercoid Corp., Chicago, Ill.
 Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Penn Controls, Inc., Goshen, Ind.
 Perflex Corp., Milwaukee, Wis.
 Reliance Regulator Div. American Meter Co., Inc., Alhambra, Calif.
 Reynolds Gas Regulator Co., Anderson, Ind.
 Standard Remote Control Valve Co., South Pasadena, Calif.
 Thermac Co., Los Angeles, Calif.
 Thompson Products, Cleveland, O.
 Weldit, Inc., Detroit, Mich.

VALVES, GAS, SAFETY PILOT

Control Engineering Corp., Norwood, Mass.
 General Controls Co., Glendale, Calif.
 Milwaukee Gas Specialty Co., Milwaukee, Wis.
 Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Partlow Corp., New Hartford, N. Y.
 Thermac Co., Los Angeles, Calif.
 White-Rodgers Electric Co., St. Louis, Mo.

VALVES, HUMIDIFIER, WATER LEVEL

Beckett & Co., Thomas, Dallas, Texas.
 Fisher Governor Co., Marshalltown, Iowa.
 General Controls Co., Glendale, Calif.
 Imperial Brass Mfg. Co., Chicago, Ill.
 Lincoln Brass Works, Detroit, Mich.
 McDonnell & Miller, Inc., Chicago, Ill.
 Maid-O'-Mist, Inc., Chicago, Ill.
 Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Morey, Dan, Los Angeles, Calif.
 Robert Mfg. Co., Los Angeles, Calif.
 Skuttle Mfg. Co., Milford, Mich.
 Viking Air Conditioning Div., National Radiator Co., Cleveland, O.

VALVES, REFRIGERATION, EXPANSION, THERMOSTATIC

A-P Controls Corp., Milwaukee, Wis.
 Alco Valve Co., St. Louis, Mo.
 Cash Co., A. W., Decatur, Ill.
 Frigidaire Div., General Motors Corp., Dayton, Ohio.
 General Controls Co., Glendale, Calif.
 Mayson Mfg. Co., Detroit, Mich.
 Sporlan Valve Co., St. Louis, Mo.
 Tenney Engineering, Inc., Union, N. J.
 Vilter Mfg. Co., Milwaukee, Wis.
 X L Refrigerating Co., Chicago, Ill.

VALVES, REFRIGERATION, WATER REGULATING, PRESSURE OR TEMPERATURE ACTUATED

A-P Controls Corp., Milwaukee, Wis.
 Alco Valve Co., St. Louis, Mo.
 Art Valve Co., Chicago, Ill.
 Bailey Co., Chas. M., San Francisco, Calif.
 Delavan Mfg. Co., West Des Moines, Ia.
 Foster Engineering Co., Union, N. J.
 General Controls Co., Glendale, Calif.
 Klipfel Mfg. Co., Hamilton, Ohio.
 McDonnell & Miller, Inc., Chicago, Ill.
 Mayson Mfg. Co., Detroit, Mich.
 Mueller Brass Co., Port Huron, Mich.
 Penn Controls, Inc., Goshen, Ind.
 Sarco Co., Inc., New York, N. Y.

VALVES, SADDLE

See Fittings, Humidifier, Water Line

VALVES, SOLENOID

A-P Controls Corp., Milwaukee, Wis.
Alco Valve Co., St. Louis, Mo.
Automatic Valve Co., Indianapolis, Ind.
Automatic Switch Co., Orange, N. J.
Barber-Colman Co., Rockford, Ill.
Barksdale Valves, Los Angeles, Calif.
Bellows Co., Akron, Ohio.
Cooper Co., Clark, Palmyra, N. J.
Crise Controls Div., Acro Mfg. Co., Columbus, O.
Cutler-Hammer, Inc., Milwaukee, Wis.
Davis Regulator Co., Chicago, Ill.
Detroit Controls Corp., Detroit, Mich.
Eclipse Fuel Engineering Co., Rockford, Ill.
Erickson Specialty Co., Cohoes, N. Y.
Frick Co., Waynesboro, Pa.
General Controls Co., Glendale, Calif.
Grove Regulator Co., Oakland, Calif.
Hays Mfg. Co., Erie, Pa.
Hercules Electric & Mfg. Co., Inc., Brooklyn, N. Y.
Hubbell Corp., Mundelein, Ill.
Hunt & Son, Inc., C. B., Salem, Ohio.
Johnson Corp., The, Three Rivers, Mich.
Keckley Co., O. C., Chicago, Ill.
Lammert & Mann Co., Chicago, Ill.
Locke Regulator Co., Salem, Mass.
McDonnell & Miller, Inc., Chicago, Ill.
McQuay-Norris Mfg. Co., St. Louis, Mo.
Mercoid Corp., Chicago, Ill.
Marsh Corp., Jas. P., Skokie, Ill.
Milwaukee Gas Specialty Co., Milwaukee, Wis.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Paul Valve Corp., New York, N. Y.
Penn Controls, Inc., Goshen, Ind.
Perfex Corp., Milwaukee, Wis.
Pfening Co., Fred D., Columbus, Ohio.
R-S Products Corp., Philadelphia, Pa.
Ruggles-Klingemann Mfg. Co., Salem, Mass.
Sarco Co., Inc., New York, N. Y.
Sarcotherm Controls, Inc., New York, N. Y.
Sciaky Bros., Inc., Chicago, Ill.
Skinner Electric Valve Div., Skinner Chuck Co., New Britain, Conn.
Sporlan Valve Co., St. Louis, Mo.
Square D Co., Detroit, Mich.
Square D Co., Industrial Controller Div., Milwaukee, Wis.
Superior Controls Co., Inc., Los Angeles, Calif.
Supreme Electric Products Corp., Rochester, N. Y.
Taylor-Winfield Corp., Warren, Ohio.
Vapor Heating Corp., Chicago, Ill.
White-Rodgers Electric Co., St. Louis, Mo.

VANES, DUCT TURNING

Anemostat Corp. of America, New York, N. Y.
Barber-Colman Co., Rockford, Ill.
Duro-Dyne Corp., New Hyde Park, L. I., N. Y.
Elgen Mfg. Corp., Long Island City, N. Y.
Register & Grille Mfg. Co., Inc., Brooklyn, N. Y.
Titus Mfg. Corp., Waterloo, Iowa.
Tuttle & Bailey, Inc., New Britain, Conn.

VAPOR BARRIERS

See Waterproofing

VENT CAPS

See Caps, Vent

VENTILATOR AND FILTER UNITS, WINDOW

Airgard Mfg. Co., Chicago, Ill.
Air-Net Appliance Co., Chicago, Ill. (With electric heating element)
Berns Mfg. Co., Chicago, Ill.
Ilg Electric Ventilating Co., Chicago, Ill.
Kaufman Air Conditioning Corp., St. Louis, Mo.
Muckle Mfg. Co., Owatonna, Minn.
National Appliance Co., Detroit, Mich.
Norge Div., Borg-Warner Corp., Chicago, Ill.
Reed Unit-Fans, Inc., New Orleans, La.
Somers, Inc., H. J., Detroit, Mich.
Trade-Winds Motorfans, Inc., Los Angeles, Calif.
Unified Air Conditioner Co., Duluth, Minn.
Utility Appliance Corp., Los Angeles, Calif.

VENTILATORS, ROOF, FAN

Accurate Sheet Metal & Mfg. Works, Chicago, Ill.
Acme Equipment Co. of Oklahoma, Inc., Muskogee, Okla.
Aerovent Fan Co., Piqua, Ohio.
Air Controls, Inc., Cleveland, Ohio.
Airjet Ventilator Co., Pasadena, Calif.
Airoflo Engineering Co., North Hollywood, Calif.
Aladdin Heating Corp., Oakland, Calif.
Allen Cooler & Ventilator Inc., Rochester, Mich.
American Blower Corp., Detroit, Mich.
American Steel Band Co., Pittsburgh, Pa.
Ammerman Co., C. L., Minneapolis, Minn.
Arex Co., Chicago, Ill.
Bar-Brook Mfg. Co., Inc., Shreveport, La.
Bertram Co., Harvey P., Cincinnati, Ohio.
Bishop & Babcock Mfg. Co., Cleveland, Ohio.
Bishop Co., R. H., Champaign, Ill.
Breidert Co., G. C., San Fernando, Calif.
Burt Mfg. Co., Akron, Ohio.
Carnes Corp., Verona, Wis.
Century Fan & Ventilator Co., Stamford, Conn.
Chelsea Fan & Blower Co., Inc., Plainfield, N. J.
Chicago Blower Corp., Franklin Park, Ill.
Clay Equipment Corp., Cedar Falls, Iowa.
Cook Co., Loren, Beres, Ohio.
Dana Fan & Blower Corp., Cincinnati, Ohio.
Davidson Hyduty Roof Fan Co., Newton, Mass.
DeBothezat Fans Div., American Machine & Metals, Inc., East Moline, Ill.
Diehl Mfg. Co., Somerville, N. J.
Dual-Air Fan Co., Hampshire, Ill.
Electrovent Fan & Mfg. Co., Chicago, Ill.
Empire Ventilation Equipment Co., Long Island City, N. Y.
Fingles Co., Baltimore, Md.
Gehri Co., Tacoma, Wash.
General Blower Co., Morton Grove, Ill.
Hartzell Propeller Fan Co., Div. Castle Hills Corp., Piqua, Ohio.
Hayes Furnace Mfg. & Supply Co., Los Angeles, Calif.
Hirschman-Pohle Co., Inc., LeRoy, N. Y.
Ilg Electric Ventilating Co., Chicago, Ill.
International Engineering, Inc., Dayton, Ohio.
Iona Ventilator Co., Inc., Philadelphia, Pa.
Iron Lung Ventilator Co., Cleveland, Ohio.
Jenn Air Products Co., Indianapolis, Ind.
Jordan & Co., Inc., Paul R., Indianapolis, Ind.
Joy Mfg. Co., Pittsburgh, Pa.
King Co., Owatonna, Minn.
Lee & Son Co., Thomas, Cincinnati, Ohio.
Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
Lumm Co., A. H., Toledo, Ohio.
M & E Mfg. Co., Indianapolis, Ind.
Martin Fan & Blower Co., Chicago, Ill.
Mountain States Equipment Co., Denver, Ohio.
Muckle Mfg. Co., Owatonna, Minn.
Newcomb-Detroit Co., Detroit, Mich.
New York Blower Co., Chicago, Ill.
Octagon Ventilator Co., Chicago, Ill.
Overly Mfg. Co., Greensburg, Pa.
Peerless Electric Co., Warren, Ohio.
Penn Ventilator Co., Philadelphia, Pa.
Pennsylvania Wire Glass Co., Philadelphia, Pa.
Puhl & Hepper Mfg. Co., Inc., St. Louis, Mo.
Riester & Thesmacher Co., Cleveland, Ohio.
Robbins & Myers, Inc., Springfield, Ohio.
Robertson Co., H. H., Pittsburgh, Pa. (Round-Rectangular)
Sargent EnginAiring Co., Cleveland, O.
Somers, Inc., H. J., Detroit, Mich.
South Bend Air Products, Inc., South Bend, Ind.
Swartwout Co., Cleveland, Ohio.
Trade-Wind Motorfans, Inc., Los Angeles, Calif.
Trane Co., The, LaCrosse, Wis.
Truffo Fan Co., Harmony, Pa.
Uno Ventilator Co., Malden, Mass.
Utility Fan Corp., Div. of Utility Appliance Corp., Los Angeles, Calif.
Van Noorden Co., E., Boston, Mass.
Wasco Flashing Co., Cambridge, Mass.
Waverly Heating Supply Co., Boston, Mass.
Western Engineering & Mfg. Co., Venice, Calif.
Wind-Way Fan & Ventilator Co., New Orleans, La.
Wing Mfg. Co., L. J., Linden, N. J.

VENTILATORS, ROOF, GRAVITY

Accurate Sheet Metal & Mfg. Works, Chicago, Ill.
Air Control Products, Inc., Coopersville, Mich.
Air Devices, Inc., New York, N. Y.

Airjet Ventilator Co., Pasadena, Calif.
 Allen Cooler & Ventilator Inc., Rochester, Mich.
 American Steel Band Co., Pittsburgh, Pa.
 Ammerman Co., C. L., Minneapolis, Minn.
 Appleton Supply Co., Inc., Appleton, Wis.
 Arex Co., Chicago, Ill.
 Berger Furnace Corp., Belle Vernon, Pa.
 Breidert Co., G. C., San Fernando, Calif.
 Burt Mfg. Co., Akron, Ohio.
 Ceco Steel Products Corp., Chicago, Ill.
 Century Fan & Ventilator Co., Stamford, Conn.
 Clay Equipment Corp., Cedar Falls, Iowa.
 Damp-Vent Co., Bettendorf, Ia.
 Danzer Metal Works Co., Hagerstown, Md.
 Donley Bros. Co., Cleveland, O.
 Empire Ventilation Equipment Co., Long Island City, N. Y.
 Excelsior Stove & Mfg. Co., Quincy, Ill.
 Fingles Co., Baltimore, Md.
 Gehri Co., Tacoma, Wash.
 Greenheck Bros. Mfg. Co., Schofield, Wis.
 Hirschman-Pohle Co., Inc., LeRoy, N. Y.
 Inland Steel Products Co., Milwaukee, Wis.
 International Metal Products Co., Phoenix, Ariz.
 Iona Ventilator Co., Inc., Philadelphia, Pa.
 Jordan & Co., Inc., Paul R., Indianapolis, Ind.
 King Co., Owatonna, Minn.
 Klauer Mfg. Co., Dubuque, Iowa.
 LaCrosse Steel Roofing & Corrugating Co., LaCrosse, Wis.
 Lee & Son Co., Thomas, Cincinnati, Ohio.
 Leslie Welding Co., Inc., Chicago, Ill.
 Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
 Lumm Co., A. H., Toledo, Ohio.
 M & E Mfg. Co., Indianapolis, Ind.
 Martin Fan & Blower Co., Chicago, Ill.
 Moeschl-Edwards Corrugating Co., Inc., Cincinnati, Ohio.
 National Metal Fabricators, Chicago, Ill.
 Newcomb-Detroit Co., Detroit, Mich.
 Octagon Ventilator Co., Chicago, Ill.
 Overly Mfg. Co., Greensburg, Pa.
 Penn Supply & Metal Corp., Philadelphia, Pa.
 Penn Ventilator Co., Philadelphia, Pa.
 Pennsylvania Wire Glass Co., Philadelphia, Pa.
 Perkinson, William J., Chicago, Ill.
 Plasteel Products Corp., Washington, Pa.
 Puhl & Hepper Mfg. Co., Inc., St. Louis, Mo.
 Ralph Mfg. Co., Inc., Wadsworth, Ohio.
 Riffin Metal Products, Inc., Kankakee, Ill.
 Robertson Co., H. H., Pittsburgh, Pa.
 Royal-Apex Mfg. Co., Inc., Brooklyn, N. Y.
 Ryniker Steel Products Co., Billings, Mont.
 St. Paul Corrugating Co., St. Paul, Minn.
 Sheet Metal Mfg. Co., Inc., Brooklyn, N. Y.
 Simpson Co., Oakland, Calif.
 Sioux Steel Co., Sioux Falls, S. D.
 Soule Steel Co., San Francisco, Calif.
 Southbridge Roofing Co., Inc., Southbridge, Mass.
 Souther Iron Co., E. E., St. Louis, Mo.
 Standard Furnace Supply Co., Ltd., Omaha, Nebr.
 Standard Ventilator Co., Lewisburg, Pa.
 Swartwout Co., Cleveland, Ohio. (Fire valve)
 Thor Metal Products Co., Inc., Syracuse, N. Y.
 Tierney Rotor Ventilator Co., Minneapolis, Minn.
 Tiffin Art Metal Co., Tiffin, Ohio.
 Uno Ventilator Co., Malden, Mass.
 Vallas, Lionel, Chicago, Ill.
 Van Noorden Co., E., Boston, Mass.
 Walker Mfg. & Sales Corp., St. Joseph, Mo.
 Warner Ventilator Co., LaGrange, Ind.
 Waverly Heating Supply Co., Boston, Mass.
 Western Engineering & Mfg. Co., Venice, Calif.
 Willis Steel Corp., Galesburg, Ill.
 York Corrugating Co., York, Pa.

VENTILATORS, VENTILATING SYSTEM

Air Control Products, Inc., Coopersville, Mich.
 American Steel Band Co., Pittsburgh, Pa.
 Auer Register Co., Cleveland, Ohio.
 Berger Furnace Corp., Belle Vernon, Pa.
 Chelsea Fan & Blower Co., Inc., Plainfield, N. J.
 DeBothezat Fans Div., American Machine & Metals, Inc., East Moline, Ill.
 Elgo Shutter & Mfg. Co., Detroit, Mich.
 Hart & Cooley Mfg. Co., Holland, Mich.
 Ilg Electric Ventilating Co., Chicago, Ill.
 Inland Steel Products Co., Milwaukee, Wis.
 King Co., Owatonna, Minn.
 Kool Air Engineering Co., San Bernardino, Calif.

Knowles Mushroom Ventilator Co., Upper Montclair, N. J.
 Lumm Co., A. H., Toledo, Ohio.
 Martin Fan & Blower Co., Chicago, Ill.
 Miller & Doing, Brooklyn, N. Y.
 Penn Ventilator Co., Philadelphia, Pa.
 Perkinson, William J., Chicago, Ill.
 Robbins & Myers, Inc., Springfield, Ohio.
 Tuttle & Bailey, Inc., New Britain, Conn.
 United States Register Co., Battle Creek, Mich.

VIBRATION ISOLATORS

See Bases and Pads

WASHERS, AIR, HEATING AND VENTILATING

Capacity 4,000 c.f.m. and up

Air & Refrigeration Corp., New York, N. Y.
 Alton Mfg. Co., Dallas, Texas.
 American Blower Corp., Detroit, Mich.
 Bayley Blower Co., Milwaukee, Wis.
 Bishop & Babcock Mfg. Co., Cleveland, Ohio.
 Buffalo Forge Co., Buffalo, N. Y.
 Carrier Corp., Syracuse, N. Y.
 Clange Fan Co., Kalamazoo, Mich.
 Columbus Heating & Ventilating Co., Columbus, Ohio.
 Comfort Products Corp., Dallas, Texas.
 Continental Air Filters, Inc., Louisville, Ky.
 Furbio Co., Hermansville, Mich.
 Mountain States Equipment Co., Denver, Colo.
 Peters-Dalton, Inc., Detroit, Mich.
 Spray Engineering Co., Somerville, Mass.
 Western Blower Co., Seattle, Wash.
 Westinghouse Electric Corp., Sturtevant Div., Boston, Mass.
 York Corp., York, Pa.

WASHERS, ELECTROSTATIC FILTER

See Reconditioners, Filter, Electrostatic

WATER HEATING COILS, FIRE POT

See Coils, Fire Pot, Domestic Hot Water

WATERPROOFING

Coating material

Adhesives & Coatings Div., Minnesota Mining & Mfg. Co., Detroit, Mich.
 Allied Porcelain, Inc., Waukegan, Ill.
 American Fluresit Co., Inc., Cincinnati, Ohio.
 American Steel Band Co., Pittsburgh, Pa.
 Armstrong Cork Co., Lancaster, Pa.
 Angier Corp., Framingham, Mass.
 Barrett Div., Allied Chemical & Dye Corp., New York, N. Y.
 Blue Ridge Talc Co., Henry, Va.
 Cabot, Inc., Samuel, Boston, Mass.
 Calbar Paint & Varnish Co., Philadelphia, Pa.
 Carey Mfg. Co., Philip, Cincinnati, Ohio.
 Carter Paint Co., Liberty, Ind.
 Cheesman-Elliott Co., Inc., Brooklyn, N. Y.
 Flintkote Co., New York, N. Y.
 Glidden Co., Cleveland, Ohio.
 Henderson & Co., Peter, New York, N. Y.
 Horn Co., Inc., A. C., Long Island City, N. Y.
 Industrial Metal Protectives, Dayton, Ohio.
 Insul-Mastic Corp. of America, Pittsburgh, Pa.
 Johns-Manville, New York, N. Y.
 Koppers Co., Inc., Pittsburgh, Pa.
 Lehon Co., Bellwood, Ill.
 Magic Chemical Co., Brockton, Mass. (Plastic)
 Metropolitan Refining Co., Inc., Long Island City, N. Y.
 Nebel Mfg. Co., Cleveland, Ohio.
 North American Mogul Products Co., Cleveland, O.
 Pabco Products Inc., San Francisco, Calif.
 Reilly Tar & Chemical Corp., Indianapolis, Ind.
 Robertson Co., H. H., Pittsburgh, Pa.
 Ruberoid Co., New York, N. Y.
 Sonneborn Sons, Inc., L., New York, N. Y.
 Southport Paint Co., Div. Wesson Oil & Snowdrift Co., Inc., Savannah, Ga.
 Speco, Inc., Cleveland, O.
 Tamms Industries Inc., Chicago, Ill.
 Toch Brothers, Inc., Staten Island, N. Y.
 Truscon Laboratories, Detroit, Mich.
 Wasco Flashing Co., Cambridge, Mass.
 Whitlam Mfg. Co., J. C., Wadsworth, O.
 X-Pando Corp., Long Island City, N. Y.

WELDERS, ARC

Air Reduction Sales Co., New York, N. Y. (ac and dc)
Birdsell Mfg. Co., Palo Alto, Calif. (ac)
Borm Mfg. Co., Elgin, Ill. (ac)
Electric Arc, Inc., Newark, N. J. (ac and dc)
Ergolyte Mfg. Co., Philadelphia, Pa.
Eutectic Welding Alloys Corp., Flushing, N. Y. (ac)
Expert Welding Machine Co., Detroit, Mich. (ac and dc)
Fern, Ralph, Scranton, Pa. (ac)
Gas Arc Supply, Philadelphia, Pa. (gas)
General Electric Co., Apparatus Sales Div., Schenectady, N. Y.
Hammett Electric Mfg. Co., Kansas City, Mo.
Harnischfeger Corp., Milwaukee, Wis. (Ac & dc)
Hercules Electric & Mfg. Co., Inc., Brooklyn, N. Y.
Hobart Bros. Co., Troy, Ohio. (Ac & dc)
Hollup Corp., Div. National Cylinder Gas Co., Chicago, Ill.
Lee Co., K. O., Aberdeen, S. D. (ac)
Lincoln Electric Co., Cleveland, Ohio.
Liquid Carbonic Corp., Industrial Gas Div., Chicago, Ill. (ac and dc)
Marquette Mfg. Co., Inc., Minneapolis, Minn. (ac)
Metal & Thermit Corp., New York, N. Y. (ac & dc)
Mid-States Welder Mfg. Co., Chicago, Ill. (ac)
Miller Electric Mfg. Co., Inc., Appleton, Wis. (ac & dc)
National Cylinder Gas Co., Chicago, Ill. (ac & dc)
Nelson Specialty Welding Equipment Corp., San Leandro, Calif. (Stud welder)
Nelson Stud Welding Div. Gregory Industries, Inc., Lorain, Ohio. (dc)
Precision Welder Mfg. Co., Chicago, Ill.
Progressive Welder Sales Co., Detroit, Mich. (ac & inert)
Sight Feed Generator Co., W. Alexandria, O.
Smith Corp., A. O., Permaglas Div., Kankakee, Ill. (ac, dc)
Smith Welding Equipment Corp., Minneapolis, Minn. (ac)
Trindl Products, Ltd., Chicago, Ill. (ac)
Westinghouse Electric Corp., Pittsburgh, Pa. (ac & dc)
Will-Weld Mfg. Co., Inc., Omaha, Nebr. (ac)

WELDERS, PROJECTION

Acme Electric Welder Co., Los Angeles, Calif.
Acro Welder Mfg. Co., Milwaukee, Wis.
Eisler Engineering Co., Newark, N. J.
Expert Welding Machine Co., Detroit, Mich.
Federal Machine & Welder Co., Warren, Ohio.
National Electric Welding Machines Co., Bay City, Mich.
Peer, Inc., Benton Harbor, Mich.
Progressive Welder Sales Co., Detroit, Mich.
Rex Welder & Engineering Co., Kansas City, Mo.
Sciaky Bros., Inc., Chicago, Ill.
Spotweld Co., Cleveland, Ohio.
Swift Electric Welder Co., Detroit, Mich.
Taylor-Winfield Corp., Warren, Ohio.
Thomson Electric Welder Co., Lynn, Mass.
Welding Machines Mfg. Co., Detroit, Mich.

WELDERS, RESISTANCE

Acme Electric Welder Co., Los Angeles, Calif.
Acro Welder Mfg. Co., Milwaukee, Wis.
Banner Products Co., Milwaukee, Wis.
Birdsell Mfg. Co., Palo Alto, Calif.
DoALL Co., Des Plaines, Ill.
Eisler Engineering Co., Newark, N. J.
Expert Welding Machine Co., Detroit, Mich.
Federal Machine & Welder Co., Warren, Ohio.
Micro Products Co., Chicago, Ill.
National Electric Welding Machines Co., Bay City, Mich.
Peer, Inc., Benton Harbor, Mich.
Progressive Welder Sales Co., Detroit, Mich.
Rex Welder & Engineering Co., Kansas City, Mo.
Royson Engineering, Hathoro, Pa.
Sciaky Bros., Inc., Chicago, Ill.
Spotweld Co., Cleveland, Ohio.
Swift Electric Welder Co., Detroit, Mich.
Taylor-Winfield Corp., Warren, Ohio.
Thomson Electric Welder Co., Lynn, Mass.
Weldex, Inc., Detroit, Mich.
Westinghouse Electric Corp., Pittsburgh, Pa.

WELDERS, SEAM

Acme Electric Welder Co., Los Angeles, Calif.
Acro Welder Mfg. Co., Milwaukee, Wis.
Banner Products Co., Milwaukee, Wis.
Federal Machine & Welder Co., Warren, Ohio.
National Electric Welding Machines Co., Bay City, Mich.

Perco, Glendora, Calif.
Progressive Welder Sales Co., Detroit, Mich.
Sciaky Bros., Inc., Chicago, Ill.
Solar Aircraft Co., San Diego, Calif.
Spotweld Co., Cleveland, Ohio.
Swift Electric Welder Co., Detroit, Mich.
Taylor-Winfield Corp., Warren, Ohio.
Thomson Electric Welder Co., Lynn, Mass.
Weldex, Inc., Detroit, Mich.
Welding Machines Mfg. Co., Detroit, Mich.

WELDERS, SPOT

Acme Electric Welder Co., Los Angeles, Calif.
Acro Welder Mfg. Co., Milwaukee, Wis.
Alphill Spot Welding Co., Brooklyn, N. Y.
Ampower Products Co., Oak Lawn, Ill.
Banner Products Co., Milwaukee, Wis.
Birdsell Mfg. Co., Palo Alto, Calif.
Duro-Dyne Corp., New Hyde Park, L. I., N. Y. (Portable)
Eisler Engineering Co., Newark, N. J.
Electric Arc, Inc., Newark, N. J.
Expert Welding Machine Co., Detroit, Mich.
Federal Machine & Welder Co., Warren, Ohio.
Fern, Ralph, Scanton, Pa.
Generator Sales Co., Chicago, Ill. (Portable)
Graham Mfg. Corp., Ferndale, Mich.
Hercules Electric & Mfg. Co., Inc., Brooklyn, N. Y.
Liquid Carbonic Corp., Industrial Gas Div., Chicago, Ill.
Micro Products Co., Chicago, Ill.
Mid-States Welder Mfg. Co., Chicago, Ill. (Portable)
Miller Electric Mfg. Co., Inc., Appleton, Wis.
National Electric Welding Machines Co., Bay City, Mich.
National Cylinder Gas Co., Chicago, Ill.
Peer, Inc., Benton Harbor, Mich.
Perco, Glendora, Calif.
Progressive Welder Sales Co., Detroit, Mich.
Rex Welder & Engineering Co., Kansas City, Mo.
Sciaky Bros., Inc., Chicago, Ill.
Spotweld Co., Cleveland, Ohio.
Swift Electric Welder Co., Detroit, Mich.
Taylor-Winfield Corp., Warren, Ohio.
Thomson Electric Welder Co., Lynn, Mass.
Weldex, Inc., Detroit, Mich.
Welding Machines Mfg. Co., Detroit, Mich.
Westinghouse Electric Corp., Pittsburgh, Pa.

WELDING FLUX

See Flux, Welding

WELDING ROD

See Rod, Welding

WELDING TORCHES

See Torches, Brazing, Cutting, Welding

WHEELS, BLOWER

Advance Aluminum Castings Corp., Chicago, Ill.
Air Controls, Inc., Cleveland, Ohio.
Airfan Engineering Co., Los Angeles, Calif.
Ammerman Co., C. L., Minneapolis, Minn.
Barry Blower Co., Minneapolis, Minn.
Bayley Blower Co., Milwaukee, Wis.
Bishop & Babcock Mfg. Co., Cleveland, Ohio.
Brookside Products Co., Inc., McCordsville, Ind.
Brundage Co., Kalamazoo, Mich.
Carolina Blower Co., Inc., Greensboro, N. C.
Champion Blower & Forge Co., Lancaster, Pa.
Chicago Blower Corp., Franklin Park, Ill.
Clarage Fan Co., Kalamazoo, Mich.
Connecticut Blower Co., Hartford, Conn.
General Blower Co., Morton Grove, Ill.
Hastings Air Conditioning Co., Inc., Hastings, Nebr.
Jan-Air, Inc., Richmond, Ill.
Lau Blower Co., Dayton, Ohio.
Martin Fan & Blower Co., Chicago, Ill.
Master Appliance Mfg. Co., Racine, Wis.
Mayne Products Co., Dayton, Ohio.
Morrison Products, Inc., Cleveland, Ohio.
Peerless Electric Co., Warren, Ohio.
Revcor, Carpentersville, Ill.
Robinson Ventilating Co., Zelenople, Pa.
Schwitzer-Cummins Co., Indianapolis, Ind.
Torrington Mfg. Co., Torrington, Conn.
Triangle Mfg. Co., Oshkosh, Wis.
United States Air Conditioning Corp., Minneapolis, Minn.

Utility Fan Corp., Div. of Utility Appliance Corp., Los Angeles, Calif.
 Vernco Corp., Columbus, Ind.
 Viking Air Conditioning Div., National Radiator Co., Cleveland, O.
 Western Blower Co., Seattle, Wash.
 Westinghouse Electric Corp., Sturtevant Div., Boston, Mass.

WINDOW COOLING UNITS

See Units, Air Conditioning, Room Type, Window

WINDOW PANELS FOR AIR CONDITIONERS

See Panels, Window, Air Conditioner

WINDOWS, METAL, HOLLOW OR EXTRUDED

Adams Co., Dubuque, Iowa.
 Biersach & Neidermeyer Co., Milwaukee, Wis.
 Detroit Steel Products Co., Detroit, Mich.
 General Bronze Corp., Garden City, L. I., N. Y.
 International Steel Co., Evansville, Ind.
 Jamestown Metal Corp., Jamestown, N. Y.
 Perkinson, William J., Chicago, Ill.
 Republic Steel Corp., Cleveland, O.
 Reynolds Metals Co., Louisville, Ky.
 Russell Co., F. C., Cleveland, Ohio.
 Steelcraft Mfg. Co., Rossmyrne, O.
 Truscon Steel Div., Republic Steel Corp., Youngstown, O.
 Vallas Lionel, Chicago, Ill.
 Willis Steel Corp., Galesburg, Ill.

WINTER AIR CONDITIONERS

See Furnaces, Forced Air

WIRE

Allegheny Ludlum Steel Corp., Pittsburgh, Pa. (Stainless)
 Aluminum Co. of America, Pittsburgh, Pa. (Aluminum)
 American Nickeloid Co., Peru, Ill. (Chrome, nickel coated)
 American Steel & Wire Div., U. S. Steel Corp., Cleveland, Ohio.
 Armo Steel Corp., Middletown, Ohio. (Stainless steel)
 Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y. (Lead, tin, cadmium, zinc)
 Berger Mfg. Div., Republic Steel Corp., Canton, Ohio. (Galv.)
 Bethlehem Steel Co., Bethlehem, Pa. (Plain, galvanized)

Bridgeport Brass Co., Bridgeport, Conn. (Brass, bronze)
 Chase Brass & Copper Co., Inc., Waterbury, Conn. (Copper)
 Columbia-Geneva Steel Div., U. S. Steel Corp., San Francisco, Calif. (Steel)
 Conklin Brass & Copper Co., Inc., T. E., New York, N. Y. (Brass, copper & bronze)
 Continental Steel Corp., Kokomo, Ind.
 Copperweld Steel Co., Glassport, Pa. (Copper covered steel)
 Crucible Steel Co., Pittsburgh, Pa. (Steel)
 Division Lead Co., Summit, Ill. (Lead, tin)
 Downs-Smith Brass & Copper Co., Inc., New York, N. Y. (Copper and copper alloys)
 Hussey & Co., C. G., Pittsburgh, Pa. (Copper)
 International Nickel Co., Inc., New York, N. Y. (Nickel & nickel alloys)
 Jones & Laughlin Steel Corp., Pittsburgh, Pa. (Steel)
 Kaiser Aluminum & Chemical Corp., Oakland, Calif. (Aluminum)
 Laclede Steel Co., St. Louis, Mo.
 National Lead Co., New York, N. Y. (Lead & tin)
 Nichols Wire & Aluminum Co., Davenport, Ia. (Aluminum)
 Page Steel & Wire Div., American Chain & Cable Co., Inc., Monessen, Pa. (Carbon steel & stainless steel)
 Republic Steel Corp., Cleveland, Ohio. (Steel)
 Reynolds Metals Co., Louisville, Ky. (Aluminum)
 Roebling's Sons Corp., John A., Suby, Colorado Fuel & Iron Corp., Trenton, N. J. (Steel & copper)
 Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala. (Steel)
 United Wire & Supply Corp., Providence, R. I. (Aluminum, Copper & copper base alloy)
 Youngstown Sheet & Tube Co., Youngstown, Ohio.

WIRE GLASS

See Glass, Wire

WIRING MACHINES

See Machines, Wiring

YEAR 'ROUND UNITS

See Units, Air Conditioning

ZONE CONTROLS

See Controls; Control Systems

NAMES AND ADDRESSES OF NATIONAL ENGINEERING SOCIETIES, ASSOCIATIONS, ETC.

- Acoustical Society of America, 205 W. Monroe St., Chicago 6, Ill.
- Air Conditioning Blower Manufacturers Association, 2300 Payne Ave., Cleveland 14, Ohio.
- Air-Conditioning and Refrigeration Institute, 1346 Connecticut Ave., N. W., Washington 6, D. C.
- Air-Conditioning and Refrigeration Wholesalers, 2607 N. High St., Columbus, Ohio.
- Air Distribution Institute, 2130 Keith Bldg., Cleveland 15, Ohio.
- Air Filter Institute, 25000 Miles Road, Cleveland 28, Ohio.
- Air Pollution Control Association, 4400 Fifth Ave., Mellon Institute Building, Pittsburgh 13, Pa.
- Aluminum Association, 420 Lexington Ave., New York 17, N. Y.
- American Foundrymen's Association, 616 S. Michigan Ave., Chicago, Ill.
- American Gas Association, 420 Lexington Ave., New York 17, N. Y.
- American Industrial Hygiene Association, 4400 Fifth Ave., Pittsburgh 13, Pa.
- American Institute of Architects, 1741 New York Ave., Washington, D. C.
- American Institute of Electrical Engineers, 33 W. 39th St., New York 18, N. Y.
- American Institute of Wholesale Plumbing & Heating Supply Associations, Inc., 402 Albee Bldg., Washington, D. C.
- American Iron and Steel Institute, 350 Fifth Ave., New York 1, N. Y.
- American Society for Testing Materials, 1916 Race St., Philadelphia 3, Pa.
- American Society of Heating and Air-Conditioning Engineers, 62 Worth St., New York 13, N. Y.
- American Society of Heating and Air-Conditioning Engineers, Research Laboratory, 7218 Euclid Ave., Cleveland 3, Ohio.
- American Society of Mechanical Engineers, 29 W. 39th St., New York 18, N. Y.
- American Society of Refrigerating Engineers, 234 Fifth Ave., New York 1, N. Y.
- American Standards Association, 70 E. 45th St., New York, N. Y.
- American Welding Society, 33 W. 39th St., New York 18, N. Y.
- American Zinc Institute, Inc., 60 E. 42nd St., New York 17, N. Y.
- Anthrax Institute, 237 Old River Rd., Wilkes Barre, Pa.
- Bituminous Coal Institute, Southern Bldg., Washington 5, D. C.
- Bituminous Coal Research, Inc., 2609 First National Bank Bldg., Pittsburgh 22, Pa.
- Building Research Advisory Board, National Academy of Sciences, National Research Council, 2101 Constitution Ave., Washington 25, D. C.
- Cooling Tower Institute, 444 Emerson St., Palo Alto, Calif.
- Copper and Brass Research Association, 420 Lexington Ave., New York 17, N. Y.
- Gas Appliance Manufacturers' Association, 60 E. 42nd St., New York 17, N. Y.
- Humidifier Association, 2300 Payne Ave., Cleveland 14, Ohio.
- Independent Insulating Contractors National Association, Room 210, Shoreham Bldg., Washington 5, D. C.
- National Association of Fan Manufacturers, 2159 Guardian Bldg., Detroit 26, Mich.
- National Association of Practical Refrigerating Engineers, 435 N. Waller Ave., Chicago 44, Ill.
- National Association of Sheet Metal Distributors, 505 Arch St., Philadelphia 3, Pa.
- National Board of Fire Underwriters, 85 John St., New York 38, N. Y.
- National Bureau of Standards, Washington 25, D. C.
- National Coal Association, Southern Bldg., 15th and H Sts., N. W., Washington 5, D. C.
- National Electrical Manufacturers Association, 155 E. 44th St., New York 17, N. Y.
- National Fire Protection Association, 60 Batterymarch St., Boston, Mass.
- National Heating Wholesalers Association, Suite 921, 228 N. LaSalle St., Chicago 1, Ill.
- National Safety Council, 425 N. Michigan Ave., Chicago 11, Ill.
- National Warm Air Heating and Air Conditioning Association, 145 Public Square, Cleveland 14, Ohio.
- National Warm Air Heating and Air Conditioning Association, Canadian Chapter, Yonge at Deloraine, Toronto 12, Ontario, Canada.
- Oil-Heat Institute of America, 500 Fifth Ave., New York 36, N. Y.
- Power Fan Manufacturers' Association, 2159 Guardian Bldg., Detroit 26, Mich.
- Refrigeration and Air Conditioning Contractors Association, National, 10660 Carnegie Ave., Cleveland 6, Ohio.
- Refrigeration Equipment Wholesalers Association, 2607 N. High St., Columbus, Ohio.
- Refrigeration Industry Safety Advisory Committee, 1346 Connecticut Ave., N. W., Washington 6, D. C.
- Refrigeration Service Engineers Society, 433 N. Waller Ave., Chicago 44, Ill.
- Refrigeration Trade Association of America, 3531 14th St., N. W., Washington 10, D. C.
- Sheet Metal Contractors National Association, 170 Division St., Elgin, Ill.
- Stoker Manufacturers Association, 307 N. Michigan Ave., Chicago 1, Ill.
- Underwriters' Laboratories, 207 E. Ohio St., Chicago 11, Ill.

Section of American Artisan

1955 DIRECTORY OF WARM AIR HEATING, RESIDENTIAL AIR CONDITIONING AND SHEET METAL PRODUCTS

[PART 3—ALL TRADE NAMES]

A

- AAF**—Air Filters. American Air Filter Co., Inc., Louisville, Ky.
- ABC**—Blower-Washer Units. American Blower Corp., Detroit, Mich.
- ABC**—Oil Burners. Automatic Burner Corp., Chicago, Ill.
- Abrams**—Furnace Brushes. Worcester Brush & Scraper Co., Div. Mason Worcester Co., Worcester, Mass.
- Absoplane**—Stainless Steel Sheets. Apollo Metal Works, Chicago, Ill.
- ACB**—Metal Protecting Paint. Tropical Paint Co., Cleveland, Ohio.
- Ace**—Damper Regulators. Martens & Stormoen Co., West Quincy, Mass.
- Acid-Proof**—Insulating Cement. Quigley Co., New York, N.Y.
- Acoustiglu**—Cement. Hetzel Roofing Products Co., Newark, N. J.
- Acoustilite**—Insulation. Insulite Div., Minnesota and Ontario Paper Co., Minneapolis, Minn.
- Acratherm**—Thermostats. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
- Activ-Air**—Furnaces. Heil Co., Milwaukee, Wis.
- Activ-Flame**—Oil & Gas Burners. Heil Co., Milwaukee, Wis.
- Ad-A-Draft**—Draft Regulators. National Fuel Conservation Co., Inc., White Plains, N.Y.
- Ada-Stic**—Insulating Cement. Botfield Refractories Co., Philadelphia, Pa.
- Adacast**—Refractories. Botfield Refractories Co., Philadelphia, Pa.
- Adamant**—Insulating Cement, Refractories. Botfield Refractories Co., Philadelphia, Pa.
- Adapatch**—Refractories. Botfield Refractories Co., Philadelphia, Pa.
- Adapto**—Gas and Oil Furnaces. Mammoth Furnace Co., St. Paul, Minn.
- A-D Board**—Asbestos Cement Sheets. Philip Carey Mfg. Co., Cincinnati, Ohio.
- Aeracool**—Fan Blades, Fans, Louvers and Shutters. Myers Electric Co., Inc., Pittsburgh, Pa.
- Aerisweld**—Welding Rod. Lincoln Electric Co., Cleveland, Ohio.
- Aerocor**—Furnace Insulation. Owens-Corning Fiberglas Corp., Toledo, O.
- Aerofan**—Fans. Pryne & Co., Inc., Pomona, Calif.
- Aerofil**—Filters. Besser Metal Products Corp., Charlotte, N.C.
- Aerofuse**—Air Diffusers. Tuttle & Bailey, Inc., New Britain, Conn.
- Aerolag**—Duct Insulation. Johns-Manville, New York, N.Y.
- Aerolux**—Oil Furnaces. S. T. Johnson Co., Oakland, Calif.
- Aeromatic**—Furnaces. United Air Heaters, Inc., Seattle, Wash.
- Aeromatic Exhauster**—Roof Ventilators. Octagon Ventilator Co., Chicago, Ill.
- Aeropel**—Kitchen Exhaust Fans. American Blower Corp., Detroit, Mich.
- Aeroplane**—Ventilators. Paul R. Jordan & Co., Inc., Indianapolis, Ind.
- Aeroplex**—Blowers. Bayley Blower Co., Milwaukee, Wis.
- Aeropull**—Ventilators. Paul R. Jordan & Co., Inc., Indianapolis, Ind.
- Aerovane**—Anemometers. Friez Instrument Div., Bendix Aviation Corp., Baltimore, Md.
- Aerovane**—Grilles, Registers. Tuttle & Bailey, Inc., New Britain, Conn.
- Afco**—Blowers, Blower-Filters, Gas and Oil Burners, Furnaces, Stokers, Air Conditioning Units. American Furnace Co., St. Louis, Mo.
- Afco Comfortmaker**—Air Conditioning Units. American Furnace Co., St. Louis, Mo.
- Afco Duo Blo**—Furnaces. American Furnace Co., St. Louis, Mo.
- Afco Master-Gas**—Furnaces. American Furnace Co., St. Louis, Mo.
- Afco Oil Master**—Furnaces. American Furnace Co., St. Louis, Mo.
- Affco**—Louvers. American Foundry & Furnace Co., Bloomington, Ill.
- A.G.**—Water Heaters. Continental Water Heater Co., Los Angeles, Calif.
- Age**—Oil Burners. All-Gas Equipment Co., Milwaukee, Wis.
- Agilene**—Pipe and Fittings, Plastic Ducts, Plastic Tubing. American Agile Corp., Bedford, Ohio.
- Agilide**—Plastic Tubing. American Agile Corp., Bedford, O.
- Agitair**—Air Diffusers, Filters, Ventilators. Air Devices Inc., New York, N.Y.
- Airacoustic**—Insulation. Johns-Manville, New York, N.Y.
- Aircell**—Duct Insulation. Norristown Magnesite & Asbestos Co., Norristown, Pa.
- Airco**—Flux, Welding Rod, Torches and Welding Equipment. Air Reduction Sales Co., New York, N.Y.
- Air-Con**—Registers. Register & Grille Mfg. Co., Inc., Brooklyn, N. Y.
- Air Control**—Air Conditioning Units, Blowers, Blower-Filter Units, Blower Housings, Coils, Registers, and Blower Wheels. Hastings Air Conditioning Co., Inc., Hastings, Nebr.
- Air Controls**—Ridge Ventilator. Plasteel Products Co., Washington, Pa.
- Air-Cote**—Insulation. Sprayo-Flake Co., Chicago, Ill.
- Air-Dryette**—Dehumidifiers. Solvay Process Div., Allied Chemical & Dye Corp., New York, N.Y.
- Aire-Flo**—Blower-Filters, Furnaces. Lennox Furnace Co., Marshalltown, Iowa.
- Aire-RAY-ator**—Furnaces. Ray Oil Burner Co., San Francisco, Calif.
- Airette**—Ventilators. Penn Ventilator Co., Philadelphia, Pa.
- Airex**—Evaporative Coolers, Blowers, Fans, Washers. Mountain States Equipment Co., Denver, Colo.
- Airflo**—Duct Accessories. Inland Steel Products Co., Milwaukee, Wis.
- Air-Flo**—Motor Operated Louvers. Air Conditioning Products Co., Detroit, Mich.
- Airfoil**—Fans, Fan Blades, Ventilators. Aerovent Fan Co., Piqua, Ohio.
- Airfoil**—Grilles, Louvers, Registers, Diffusers. Titus Mfg. Corp., Waterloo, Iowa.
- Airguide**—Hygrometers and Thermometers. Fee & Stemwedel, Inc., Chicago, Ill.
- Air Guide**—Duct Vanes. Titus Mfg. Corp., Waterloo, Iowa.
- Air Guide**—Registers. S. R. Roberts Co., Marshall, Mich.
- Airistocrat**—Fan Blades. Torrington Mfg. Co., Torrington, Conn.
- Airjector**—Ventilators. Swartwout Co., Cleveland, Ohio.
- Air-Jet**—Prefabricated Chimney. General Products Co., Fredericksburg, Va.
- Air-Lift**—Blowers and Fans. Mauer Engineering, Evanston, Ill.
- Airlift**—Ventilators. Swartwout Co., Cleveland, Ohio.
- Airliner**—Fan Blades. Alan E. Burden Co., Los Angeles, Calif.
- Airlouver**—Louvers. Swartwout Co., Cleveland, Ohio.
- Airmat**—Throwaway Filters. Aigard Mfg. Co., Chicago, Ill.
- Air-Mat**—Dust Collectors, Filters, American Air Filter Co., Inc., Louisville, Ky.
- Air Meter**—Anemometers. Hastings Instrument Co., Inc., Hampton, Va.
- Airmover**—Ventilators. Swartwout Co., Cleveland, Ohio.
- Airo-Flex**—Directional Flow Registers. Auer Register Co., Cleveland, Ohio.
- Air O Fresh**—Air Sterilizers. Melco Products, Inc., Minneapolis, Minn.
- Air-O-Matic**—Air Conditioning Units. Williams Div., Eureka-Williams Co., Div. of Henney Motor Co., Inc., Bloomington, Ill.
- Airotor**—Blower Wheels. Torrington Mfg. Co., Torrington, Conn.

Air-Out—Ventilator. Accurate Sheet Metal & Mfg. Works, Chicago, Ill.
Airphlo—Roof Ventilators. Octagon Ventilator Co., Chicago, Ill.
Air Power—Ventilating Systems. Martin Fan & Blower Co., Chicago, Ill.
Air Power—Blower Controls. A-P Controls Corp., Milwaukee, Wis.
Airspan—Wire Cloth Filters. Air Filter Corp., Milwaukee, Wis.
Air-Seel—Oil Burners. Calorol Burner Corp., Hartford, Conn.
Air Set—Combustion Chambers. Harvey, Inc., Sid. Valley Stream, N. Y.
Airstat—Controls. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Air Tumbler—Dust Collectors. Dust Suppression & Engineering Co., Lake Orion, Mich.
Air-Turn—Vanes. Barber-Colman Co., Rockford, Ill.
Air-Vane—Registers. Rock Island Register Co., Rock Island, Ill.
Air-Vent—Roofing Felt. Ruberoid Co., New York, N.Y.
Air Wall—Furnaces, Registers. General Electric Co., Air Conditioning Div., Bloomfield, N. J.
Air Wave—Ventilating Fans. Trade-Wind Motors, Inc., Los Angeles.
Airweight—Aluminum Ladders. Newark Ladder & Bracket Co., Inc., Rahway, N. J.
Air-X-Hauser—Chimney Caps. Ventilators. G. C. Breidert Co., San Fernando, Calif.
Air-X-It—Ventilators. Octagon Ventilator Co., Chicago, Ill.
AirXpeler—Chimney Caps and Tops. Heating Coils, Exhausters, Fans, Blowers and Ventilators, Draft Boosters, Blower and Fan Housings, Blower Wheels. C. L. Ammerman Co., Minneapolis, Minn.
Aklo—Skylight Wire Glass. Blue Ridge Glass Corp., Kingsport, Tenn.
Aktiv—Cleaning Compound. Turco Products, Inc., Los Angeles, Calif.
Alaco—Vacuum Cleaner. Ace Co., Ocala, Fla.
Alclad—Sheets. Aluminum Company of America, Pittsburgh, Pa.
Alco—Ventilators. A. H. Lumm Co., Toledo, Ohio.
Alcoa—Aluminum Products. Aluminum Co. of America, Pittsburgh, Pa.
Alcuplate—Metal Sheets. General Plate Div., Metals & Controls, Attleboro, Mass.
Alen—Air Conditioning Units and Air Washers. Comfort Products Corp., Dallas, Tex.
Alfer—Metal Sheets. General Plate Div., Metals & Controls Corp., Attleboro, Mass.
Alfol Asbestos—Duct Insulation. Reflectal Corp., Subsidiary Borg-Warner Corp., Chicago, Ill.
Allegheny Metal—Stainless. Allegheny Ludlum Steel Corp., Pittsburgh, Pa.
Allen-Flux—Soldering Flux. L. B. Allen Co., Inc., Chicago, Ill.
All-Sol—Flux. L. B. Allen Co., Inc., Chicago, Ill.
Alltime—Insulation. Coast Insulating Product, Los Angeles, Calif.
All-Tite—Metal Stampings and Duct Turning Vanes. Elgen Mfg. Corp., Long Island City, N.Y.
Alma—Furnace Brushes. Worcester Brush & Scraper Co., Worcester, Mass.
Almar—Hand Slitting Machines, Power Flanging Machines. Ward Machinery Co., Chicago, Ill.
Almar Easy—Rotary Slitting Shears. Ward Machinery Co., Chicago, Ill.

Alnifer—Metal Sheets. General Plate Div., Metals & Controls, Attleboro, Mass.
Alnor—Thermometers. Illinois Testing Laboratories, Inc., Chicago, Ill.
Alodine—Aluminum surface treatment. American Chemical Paint Co., Ambler, Pa.
Alpine—Evaporative Coolers. International Metal Products Co., Phoenix, Ariz.
Alsiplate—Metal Sheets. General Plate Div., Metals & Controls, Attleboro, Mass.
Alumaloy EZ Kleen—Air Filters. Research Products Corp., Madison, Wis.
Alumaroll—Metal Awnings. Wagner Awning & Mfg. Co., Cleveland, Ohio.
Alumaweld—Flux and Solder. Johnson Mfg. Co., Inc., Mount Vernon, Iowa.
Alumbrite—Paint. Thompson & Co., Oakmont, Pa.
Alumi-Flux—Soldering Flux. L. B. Allen Co., Inc., Chicago, Ill.
Alumin-nu—Metal Cleaner. NuSteel Co., Chicago, Ill.
Aluminized—Clad Sheets. American Rolling Mill Co., Middletown, Ohio.
Aluminweld—Welding Rod. Lincoln Electric Co., Cleveland, Ohio.
Alumi-Soder—Aluminum Solder. L. B. Allen Co., Inc., Chicago, Ill.
A-Lum-O-Aire—Filters. Aluminum Wool Div., Carey Electronic Engineering Co., Springfield, Ohio.
Alumseal—Prefabricated Flashings. Waco Flashing Co., Cambridge, Mass.
Always Reliable—Soldering Furnaces, Torches. Otto Bernz Co., Rochester, N.Y.
AM—Solder. Alpha Metals, Inc., Jersey City, N.J.
Amazon—Water Heaters. Mustee Heater Co., Cleveland, Ohio.
Amco—Cabinets. Atlas Mfg. Co., St. Paul, Minn.
Amco—Flux. American Solder & Flux Co., Philadelphia, Pa.
Amcoil—Air Conditioners. American Coils, Inc., Newark, N. J.
Amer-glas—Air Filters. American Air Filter Co., Inc., Louisville, Ky.
American—Furnaces. Ryniker Steel Products Co., Billings, Mont.
American—Beadling and Crimping Machines. Chas. E. Kraus Mfg. Co., Louisville, Ky.
American—Humidity and Temperature Recorders, Thermometers. Manning, Maxwell and Moore, Inc., Stratford, Conn.
American—Water Heaters. Hotstream Heater Co., Cleveland, Ohio.
American HV—Filters. American Air Filter Co., Inc., Louisville, Ky.
Amerivent—Flue Pipe and Fittings. American Metal Products Co., Inc., Los Angeles, Calif.
Amerjet—Blow Pipe Collectors. American Air Filter Co., Inc., Louisville, Ky.
Amerock—Cabinet and Casing Hardware. American Cabinet Hardware Corp., Rockford, Ill.
Aminco—Hygrometers, Relays, Thermostats. American Instrument Co., Silver Spring, Md.
AMS—Pumps. American-Marsh Pumps, Inc., Battle Creek, Mich.
Amweld—Grilles. American Welding & Mfg. Co., Building Products Div., Warren, O.
Anaconda—Copper and Brass Products. American Brass Co., Waterbury, Conn.
Anchor—Hangers. Royal-Apex Mfg. Corp., Brooklyn, N. Y.

AnchorAire—Furnaces. Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
Anchor Brand—Rivets. Townsend Co., New Brighton, Pa.
Anchorfast—Nails. Independent Nail & Packing Co., Bridgewater, Mass.
Anchorite—Nails. Dickson Weatherproof Nail Co., Evanston, Ill.
Anemotherm—Air Velocity Meters. Anemostat Corp. of America, New York, N.Y.
Angle-Chek—Inspection Tool for Sheet Metal Workers. Sheridan-Gray, Inc., Palos Verdes Estates, Calif.
Anthra-flo—Furnaces. Coal-O-Matic Co., Trucksville, Pa.
Apartment—Window Ventilating Fans. Autovent Fan & Blower Div., Herman Nelson Corp., Chicago, Ill.
Apexo—Roof Flashing. Simplex Mfg. Co., Fond du Lac, Wis.
Appton—Pneumatic Hammer. Merchandising & Mfg. Associates, Inc., Lancaster, Pa.
Apthorp—Oil Burner Nozzles. Boston Machine Works Co., Lynn, Mass.
Aquabar—Roof Cement. Continental Products Co., Euclid, Ohio.
Aqua-Clear—Rust Preventive. Sudbury Laboratory, South Sudbury, Mass.
Aquadam—Roof Cement, Waterproofing. Blue Ridge Talc Co., Inc., Henry, Va.
Aquella—Waterproofing. Peter Henderson & Co., New York, N. Y.
Aqua-Scale—Automatic Humidifier. J. P. Glasby Mfg. Co., Bloomfield, N. J.
Aqulux—Water Heaters. S. T. Johnson Co., Oakland, Calif.
A&R—Duct Dampers, Louvers and Shutters. Air & Refrigeration Corp., New York, N. Y.
Arc-Eng—Air Conditioning Registers. Register & Grille Mfg. Co., Inc., Brooklyn, N. Y.
Arcoflame—Oil Burners. Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
Arcoil—Furnaces. Standard Arcoil Corp., Newark, N.J.
Arcosite—Flux. Arcos Corp., Philadelphia, Pa.
Arctic Circle—Evaporative Coolers. International Metal Products Company, Phoenix, Ariz.
Arex-Austor—Ventilators. Arex Co., Chicago, Ill.
Arid-Air—Dehumidifiers. Tamms Industries, Inc., Chicago, Ill.
Arin Accelerator—Louvers and Shutters. Arex Co., Chicago, Ill.
Arin Stationary—Louvers and Shutters. Arex Co., Chicago, Ill.
Armorize—Paint. Carter Paint Co., Liberty, Ind.
Armstrong—Compressors. General Machinery Co., Spokane, Wash.
Arrow—Furnaces. Dowagiac Steel Furnace Co., Dowagiac, Mich.
Arrow-Line—Water Heaters. Bastian-Morley Co., Inc., La Porte, Ind.
Arrowtrol—Registers. Register & Grille Mfg. Co., Inc., Brooklyn, N. Y.
Artcraft—Blowers and Furnaces. Chicago Steel Furnace Co., Chicago, Ill.
ASARCO—Sheets and Roofing. Federated Metals Div., American Smelting and Refining Co., New York, N.Y.
Asbestile—Roof Cement, Flashings. Johns-Manville, New York, N.Y.
Asbestocel—Furnace Insulation. Johns-Manville, New York, N.Y.
Asco—Relays, Switches, Valves. Automatic Switch Co., Orange, N. J.

Asco—Gutter Fittings and Accessories, Roof Flashings, Atchison Specialty Mfg. Co., Atchison, Kans.
 ASMC—Flux, Farrelloy Co., Philadelphia, Pa.
 At-A-Glance—Oil Tank Gauge, Krueger Sentry Gauge Co., Green Bay, Wis.
 atc—Welding timers, Automatic Temperature Control Co., Inc., Philadelphia, Pa.
 Atlas—Blowers, Furnaces, International Sales Co., San Francisco, Calif.
 Atomick—Nozzles, Humidifiers, Maid-O'-Mist, Inc., Chicago, Ill.
 Atomist—Humidifiers, American Foundry & Furnace Co., Bloomington, Ill.
 Attifan—Fans and Ventilators, Kool Air Engineering Co., San Bernardino, Calif.
 Auto—Humidifier Valves, Maid-O'-Mist, Inc., Chicago, Ill.
 Auto-Fyre—Furnaces, Lennox Furnace Co., Marshalltown, Ia.
 Auto-Klean—Fuel Oil Filters, Cuno Engineering Corp., Meriden, Conn.
 Automaze—Air Filters, Air-Maze Corp., Cleveland, O.
 Autostart—Buffers, U. S. Electrical Motors, Inc., Los Angeles, Calif.
 AW—Plates, Sheets, Hardened Masonry Nails, Alan Wood Steel Co., Conshohocken, Pa.
 AX—Oil Burners, Aldrich Co., Wyoming, Ill.
 Axifo—Fans, Westinghouse Electric Corp., Sturtevant Div., Boston, Mass.
 Axivane—Fans, Joy Mfg. Co., New Philadelphia, Pa.

B

B-60—Controls, General Controls Co., Glendale, Calif.
 BAC—Refrigerating condensers and cooling towers, Baltimore Aircoil Co., Inc., Baltimore, Md.
 Bacute—Insulating Cement, Bird-Archer, Philadelphia, Pa.
 Baco—Refractories, Bird-Archer, Philadelphia, Pa.
 Badger—Time Switches, Reliance Automatic Lighting Co., Racine, Wis.
 Baffle Mix—Refractories, Walsh Refractories Corp., St. Louis, Mo.
 Ball Flame—Oil Burners, Kresno-Stamm Mfg. Co., Palisades Park, N. J.
 Ball-Rite—Electric Drills, John Oster Mfg. Co., Milwaukee, Wis.
 Balsam-Wool—Flexible Insulation, Wood Conversion Co., St. Paul, Minn.
 Bankheat—Oil Burners, S. T. Johnson Co., Oakland, Calif.
 Banner—Refractories, Chicago Fire Brick Co., Chicago, Ill.
 Bantam—Motors, Small Motors, Inc., Chicago, Ill.
 Bantam—Shear, Lincoln Machine Co., Boston, Mass.
 Bantam Bully—Air Hammer, Superior Pneumatic & Mfg., Inc., Cleveland, Ohio.
 Barcol—Motors, Barber-Colman Co., Rockford, Ill.
 Bar-Ox—Rust Inhibitor, Truscon Laboratories, Detroit, Mich.
 Barrett Specification—Roofing Felt, Barrett Div., Allied Chemical & Dye Corp., New York, N. Y.
 Bar Rust—Metal Protecting Paints, Midland Paint & Varnish Co., Cleveland, Ohio.
 Barry—Pillow Blocks, Pulleys, R. & J. Dick Co., Inc., Passaic, N. J.
 Basa—Mallets, Greene, Tweed & Co., North Wales, Pa.

Basmor—Furnace, Bastian-Morley Co., Inc., LaPorte, Ind.
 Baso—Gas Pilots and Solenoid Valves, Milwaukee Gas Specialty Co., Milwaukee, Wis.
 BB—Blast Gates, Roof Clips, Damper Clips and Tips, Conductor Fittings and Accessories, Snow Guards, Berger Brothers Co., Philadelphia, Pa.
 B&B—Louvers & Shutters, Blower Wheels, Bishop & Babcock Mfg. Co., Cleveland, Ohio.
 Bearcat—Hoists, The Harrington Co., Plymouth Meeting, Pa.
 Beckett—Gas Burners, Horsman-Markin Corp., Detroit, Mich.
 Beckett Commodore—Oil Burners, R. W. Beckett Corp., Elyria, Ohio.
 Bellair—Window Air Conditioners, Packard-Bell Co., Bellair Room Air Conditioning Div., Los Angeles, Calif.
 Beloit—Sheet Metal Machines, Punches, Hendley & Whittemore Co., Beloit, Wis.
 Bemis—Furnace Brushes, Worcester Brush & Scraper Co., Worcester, Mass.
 Benda-Vane—Registers, Rock Island Register Co., Rock Island, Ill.
 Bendit—Benders, Press Brakes, Connors & Davis Sales Corp., West Springfield, Mass.
 Berger—Cabinets and Casings, Gutter Accessories, Rooftrim, Republic Steel Corp., Cleveland, O.
 Berloy—Building Products, Berger Mfg. Co., Div. Republic Steel Corp., Canton, Ohio.
 Beth-Cu-Loy—Sheets, Bethlehem Steel Co., Bethlehem, Pa.
 Better-Bilt—Furnaces, Barnes Heating & Ventilating Co., Long Beach, Calif.
 BFC—Gas Burners, Moncrief Furnace & Mfg. Co., Dallas, Tex.
 B-H—Building Insulation, Baldwin-Hill Co., Trenton, N. J.
 Bifurcator—Blowers, DeBothezat Fans Div. American Machine & Metals, Inc., East Moline, Ill.
 Big Bully—Air Hammers, Superior Pneumatic & Mfg., Inc., Cleveland, Ohio.
 Bildrite—Sheathing, Insulate Div. Minnesota & Ontario Paper Co., Minneapolis, Minn.
 Billy Penn—Chimney Caps, Gutter and Accessories, Roof Flashings, Mouldings and Trim, Furnace Pipe and Fittings, Ventilators, Penn Supply & Metal Corp., Philadelphia, Pa.
 Biltwel—Furnaces, Fraser & Johnston Co., San Francisco, Calif.
 Bitumastic—Paint, Koppers Co., Inc., Pittsburgh, Pa.
 Bituseal—Paint, Cheesman-Elliott Co., Inc., Brooklyn, N. Y.
 Black Arrow—Spray Guns, Black Mfg. Co., Harrison, N. J.
 Black Asphalt—Roofing Paint, Philip Carey Mfg. Co., Cincinnati, Ohio.
 Black Diamond—Built-up Roofing, Barrett Div., Allied Chemical & Dye Corp., New York, N. Y.
 Black Flash—Roof Cement, J. C. Whitlam Mfg. Co., Wadsworth, O.
 Black Lap—Roof Cement, Philip Carey Mfg. Co., Cincinnati, Ohio.
 Blazecrete—Refractories, Johns-Manville, New York, N. Y.
 Blend Air—Furnaces and Air Conditioning Units, Coleman Co., Inc., Wichita, Kans.
 B-Line—Motors, Brown-Brockmeyer Co., Dayton, Ohio.
 Blo-Aire—Blower-Filter Units, Meyer Furnace Co., Peoria, Ill.
 Blo-Fan—Fans, Pryne & Co., Inc., Pomona, Calif.

Bloflex—Flexible Hose, Flexaust Co., New York, N. Y.
 Blowette—Blower-Filter Units, Lan Blower Co., Dayton, Ohio.
 Blu-Blaze—Chimney Caps, Tesco, Inc., Tulsa, Okla.
 Blu-Cold—Compressors, Lehigh Mfg. Co., Lancaster, Pa.
 Blue-Flame—Gas Burners, Zink Co., John, Tulsa, Okla.
 Blue Flame—Rotary Oil Burners, Calor-oil Burner Corp., Hartford, Conn.
 Blue-Point—Drills, Tools, Snap-on Tools Corp., Kenosha, Wis.
 Blue Ring—Conversion Gas Burners, Niagara Motors Corp., Dunkirk, N. Y.
 Blu-Flame—Incinerators, Gas Burners, Vacuum Gas Burner Co., Olean, N. Y.
 Blu-Flex—Hack Saw Blades, Millers Falls Co., Greenfield, Mass.
 BNCO—Cabinets and Casings, Biersach & Neidermeyer Co., Milwaukee, Wis.
 B-N Multi-stage—Oil Burners, Oil Furnaces, Benner-Nawman, Inc., Oakland, Calif.
 Bob-Cat—Electric Hoist, Lisbon Hoist & Crane Co., Lisbon, Ohio.
 Bob Float Valves—Water Level Valves, Robert Mfg. Co., Los Angeles, Calif.
 Bonderite—Metal Cleaner, Parker Rust-Proof Co., Detroit, Mich.
 Bondmaster—Adhesives, Rubber and Asbestos Corp., Bloomfield, N. J.
 Bondwich—Metal Sheets, General Plate Div., Metals & Controls, Attleboro, Mass.
 Boomer—Furnaces, Hess-Snyder Co., Massillon, Ohio.
 Boston Breeze—Oil Burners, Boston Machine Works Co., Lynn, Mass.
 Boston Chrome Steel—Baffles, Boston Machine Works Co., Lynn, Mass.
 Boston-Standard—Draft Dampers, Boston Machine Works Co., Lynn, Mass.
 Boyer—Power Hammers, Rivet Guns, Chicago Pneumatic Tool Co., New York, N. Y.
 Bradford—Water Heaters, Pennsylvania Range Boiler Co., Philadelphia, Pa.
 Branford—Oil Burners, Malleable Iron Fittings Co., Branford, Conn.
 Brassweld—Steel Brazing Flux, Sight Feed Generator Co., West Alexandria, Ohio.
 Brazaloy—Aluminum, cast iron, copper, magnesium and silver soldering flux, All-State Welding Alloys Co., Inc., White Plains, N. Y.
 Brazo—Bronze Soldering Flux, Linde Air Products Co., New York, N. Y.
 Breese—Oil Burners, Jackson G. Gilmore & Co., Columbus, O.
 Breez-Air—Fans, Buffalo Forge Co., Buffalo, N. Y.
 Breezebuilder—Fans, Bar-Brook Mfg. Co., Inc., Shreveport, La.
 Breeze Conditioning—Ventilators, American Coolair Corp., Jacksonville, Fla.
 Breezemaster—Fans, Acme Equipment Co. of Oklahoma, Inc., Muskogee, Okla.
 Breezo—Kitchen Exhaust Fans, Buffalo Forge Co., Buffalo, N. Y.
 Breezy-Air—Evaporative Coolers, Barwick Mfg. Corp., Wichita, Kans.
 Brentwood—Floor Furnaces, Water Heaters, National Appliances, Inc., New Kensington, Pa.
 Bressler—Draft Damper Motors, Kol Master Corp., Oregon, Ill.
 Brick-Mix—Plastic Refractory, Chicago Fire Brick Co., Chicago, Ill.
 Brilliant—Paint, Calbar Paint & Varnish Co., Philadelphia, Pa.
 Brilliant Fire—Furnaces, Ohio Foundry & Mfg. Co., Steubenville, Ohio.

Bronco—Solder. General Plate Div., Metals & Controls Corp., Attleboro, Mass.
 Bronzoid—Bearings. Dodge Mfg. Corp., Mishawaka, Ind.
 Bronzoid—Cast Iron Brazing Flux. Sight Feed Generator Co., West Alexandria, Ohio.
 Brown—Gas Burners. Sterling Engineering Co., St. Louis, Mo.
 Brown Elektronik—Humidity and Temperature Recorders, Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Brownskin—Waterproof Sheathing Paper. Angier Corp., Framingham, Mass.
 Brule—Incinerators. Goder Incinerator Corp., Chicago, Ill.
 BTU—Furnace Cement. Philip Carey Mfg. Co., Cincinnati, Ohio.
 Budget—Water Heaters. Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
 Bulldog—Expansion Bolts, Electric Hammers. J. D. Polis Mfg. Co., Chicago, Ill.
 Bulldog—Snips and Shears. Wiss & Sons Co., Newark, N. J.
 Bulldog—Shear. Lincoln Machine Co., Boston, Mass.
 Bundy—Tubing. Bundy Tubing Co., Detroit, Mich.
 Bunker Hill—Roofing, Sheets and Solder. Northwest Lead Co., Seattle, Wash.
 Burdco—Propeller Fan Blades. Alan E. Burden Co., Los Angeles, Calif.
 Burnall—Incinerators. General Engineering Co., Bay City, Mich.
 But-N-tite—Steel Roofing. St. Paul Corrugating Co., St. Paul, Minn.
 Buzzer—Gas Soldering Furnaces. Charles A. Hones, Inc., Baldwin, N. Y.
 B & W—Refractories & Furnace Insulation. Babcock & Wilcox Co., New York, N. Y.
 BX—Oil Burners. Aldrich Co., Wyoming, Ill.

C

C-10—High Temperature Paint. Laclede-Christy Clay Products Co., St. Louis, Mo.
 Cable King—Hoist. Yale & Towne Mfg. Co., Philadelphia, Pa.
 Calcode—Waterproofing. Calbar Paint & Varnish Co., Philadelphia, Pa.
 California—Water Heaters. W. B. Bastian Mfg. Co., Los Angeles, Calif.
 Calka-Matic—Caulking Guns. Vital Products Mfg. Co., Cleveland, O.
 Calkmaster—Caulking Guns. Vital Products Mfg. Co., Cleveland, O.
 Caloric—Furnaces. Marshall Furnace Co., Marshall, Mich.
 Capillary—Air Conditioning Units, Washers, Filters. Air & Refrigeration Corp., New York, N. Y.
 Capital—Furnaces. Farris Furnace Co., Springfield, Ill.
 Capilaire—Furnaces. United States Radiator Corp., Detroit, Mich.
 Capri—Air Conditioning Units. Frigid, Inc., Brooklyn, N. Y.
 Cars-Flux No. 400—Flux solution. Carajon Chemical Co., Inc., Fremont, Mich.
 Carbolite—Soot Remover. Ampion Corp., Long Island City, N. Y.
 Carbonaire—Oil Burners. Breeze Corps., Inc., Newark, N. J.
 Carburetor-Stoker—Industrial Stokers. Woolley Eng. Co., Detroit, Mich.
 Cardolite—Caulking Compound and Paint. Irvington Varnish & Insulator Div., Minnesota Mining & Mfg. Co., Irvington, N. J.

Carex-CP5—Roof Cement. Philip Carey Mfg. Co., Cincinnati, Ohio.
 Carey Coating—Roofing Paint. Philip Carey Mfg. Co., Cincinnati, Ohio.
 Careyclad—Metal Protecting Paint. Philip Carey Mfg. Co., Cincinnati, Ohio.
 Careyduct—Prefabricated Duct. Philip Carey Co., Cincinnati, Ohio.
 Carilloy—Plate. United States Steel Corp., Pittsburgh, Pa.
 Castalu—Blower Wheels. Advance Aluminum Castings Corp., Chicago, Ill.
 Castomatic—Solder. Federated Metals Div., American Smelting and Refining Co., New York, N. Y.
 Cast-Refract—Baffles. Quigley Co., Inc., New York, N. Y.
 Catomic—Combustion Heads. Quiet Automatic Burner Corp., Newark, N. J.
 Caulk-N-Seal—Caulking Compound. Blue Ridge Talc Co., Inc., Henry, Va.
 Caulk-O-Seal—Caulking and Glazing Compounds. Calbar Paint & Varnish Co., Philadelphia, Pa.
 Cauxeal—Compounds, X-Pando Corp., Long Island City, N. Y.
 CDC—Bearings and Pulleys. Chicago Die Casting Co., Chicago, Ill.
 Ce-Co—Caulking Compounds & Paints. Cheesman-Elliott Co., Inc., Brooklyn, N. Y.
 Cecotite—Roofing Paint. Cheesman-Elliott Co., Inc., Brooklyn, N. Y.
 C-E Heatmaster—Water Heaters. Combustion Engineering Co., Inc., Chattanooga, Tenn.
 Ceil-N-Ventor—Fans. Universal Blower Co., Birmingham, Mich.
 Cello-Sponge—Evaporators. Viking Air Conditioning Corp., Cleveland, Ohio.
 Cementkote—Paint. Tropical Paint Co., Cleveland, Ohio.
 Center-Finder—Protractor. Interstate Sales Co., New York, N. Y.
 Centerflo—Industrial Fans. Holden Fan Co., Detroit, Mich.
 Centrifugal—Roof Ventilators. Burt Mfg. Co., Akron, Ohio.
 Centripeller—Ventilating Fans. Paul R. Jordan & Co., Inc., Indianapolis, Ind.
 C-H—Relays, Switches and Valves. Cutler-Hammer, Inc., Milwaukee, Wis.
 Challenger—Fans. Signal Electric Div., King-Seely Corp., Menominee, Mich.
 Challenger—Furnaces. Wheeling Furnace Corp., Martins Ferry, Ohio.
 Challenger—Stokers. Kol-Master Corp., Oregon, Ill.
 Chamco—Building Insulation. Chamberlin Co. of America, Detroit, Mich.
 Champion—Water Heaters. Bastian-Morley Co., Inc., LaPorte, Ind.
 Champion—Water Heaters. Crane Co., Chicago, Ill.
 Channeldrain—Sheet Metal Roofing. Wheeling Corrugating Co., Wheeling, W. Va.
 Chester—Water Heaters. Ajax Thermostatic Controls Co., Gates Mills, Ohio.
 CHFS Co.—Metal Duct. Chicago Heights Furnace Supply Co., Chicago Heights, Ill.
 Chicago—Brakes and Presses. Dreis & Krump Mfg. Co., Chicago, Ill.
 Chicago—Stokers. Eddy Stoker Corp., Chicago, Ill.
 Chicago—Toggle and Anchor bolts. Chicago Expansion Bolt Co., Chicago, Ill.
 Chicago Steel—Snips and Shears. W. A. Whitney Mfg. Co., Rockford, Ill.
 Chico Brikset—Furnace and Insulating Cement, Refractories. Chicago Fire Brick Co., Chicago, Ill.
 Chill Air—Evaporative Coolers, Fans, Recirculating Pumps. National Engineering & Mfg. Co., Sedalia, Mo.

Chinook—Heating Coils. Bayley Blower Co., Milwaukee, Wis.
 Chore Boy—Conversion Gas Burner. Standard Fuel Engineering Co., Detroit, Mich.
 Chore Boy—Incinerators. Incinerator Products Co., Detroit, Mich.
 Chromend—Welding Rod. Arcos Corp., Philadelphia, Pa.
 Chromtrim—Mouldings and Trim. R. D. Werner Co., Inc., New York, N. Y.
 Chronat—Furnace Repairs. National Foundry & Furnace Co., Dayton, Ohio.
 Chronotherm—Thermostats. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Chrysler-Airtemp—Heating and Cooling Equipment. Airtemp Div., Chrysler Corp., Dayton, Ohio.
 Cibulas—Puttyless Skylights. General Sheet Metal Works, Inc., Bridgeport, Conn.
 Cinch—Expansion Bolts. National Lead Co., New York, N. Y.
 Cinco—Windows. R. C. Russell Co., Cleveland, Ohio.
 Cinerator—Incinerators. Harmond Co., Cleveland, O.
 Cinkote—Paint. Blue Ridge Talc Co., Inc., Henry, Va.
 Cinti—Elbows. Cincinnati Elbow Co., Cincinnati, Ohio.
 Circulaire—Wall Furnaces. Hammel Radiator Eng. Co., Los Angeles, Calif.
 Circulaire—Furnace Fan. Corlett-Turner Co., Chicago, Ill.
 Circu-Ray—Furnaces. Temco, Inc., Nashville, Tenn.
 CJB—Bearings. Ahlberg Bearing Co., Chicago, Ill.
 C&L—Soldering Furnaces and Torches. Clayton & Lambert Mfg. Co., Louisville, Ky.
 Clason—Snow Guards. M. N. Cartier & Sons Company, Providence, R. I.
 Clauss—Snips and Shears. Henkel-Clauss Co., Fremont, Ohio.
 Cleanaire—Blower-Filter Units. Peerless Furnace and Foundry Co., Indianapolis, Ind.
 Clean Right—Soot Remover. General Filters, Inc., Novi, Mich.
 Clearview—Oil Tank Gauge. Boston Machine Works Co., Lynn, Mass.
 Cleveland—Burners, Furnaces. Dornback Furnace & Fdy. Co., Cleveland, Ohio.
 Cleveland—Water Heaters. Hotstream Heater Co., Cleveland, O.
 Climate Master—Furnaces, Air Conditioning Units. Hess Co., Chicago, Ill.
 Climatrol—Air Conditioning Units, Blower-Filter Units, Furnaces, Conversion Burners, Furnace Pipe, Humidifiers, Dehumidifiers, Incinerators, Registers. Mueller Climatrol, Milwaukee, Wis.
 Clincher—Rain Goods and Accessories. Inland Steel Products Co., Milwaukee, Wis.
 Clipper—Furnaces. Henderson Furnace & Mfg. Corp., Sebastopol, Calif.
 Clipper—Kitchen Exhaust Fans. Trade-Wind Motorfans, Inc., Los Angeles, Calif.
 Clipper—Ventilators. Riggins Metal Products, Inc., Kankakee, Ill.
 CM—Cranes, Hoists. Chisholm-Moore Hoist Div., Columbus McKinnon Chain Corp., Tonawanda, N. Y.
 Cog-Belt—V Belts. Dayton Rubber Co., Dayton, O.
 Colcap—Roofing Felt. Philip Carey Mfg. Co., Cincinnati, Ohio.
 Coldprest—Housings, Commercial Shearing & Stamping Co., Youngstown, Ohio.

Coldstream—Air Conditioning Units. Baker Refrigeration Corp., South Windham, Me.

Cole—Draft Governor. Cole-Sewell Engineering Co., Minneapolis, Minn.

Collopakes—Roofing Paint. Samuel Cabot, Inc., Boston, Mass.

Colmonoy—Welding Rod. Wall Colmonoy Corp., Detroit, Mich.

Colonial—Blower-Filter, Oil Burners, Furnaces, Humidifiers, Heaters, Stokers. Green Colonial Furnace Co., Des Moines, Ia.

Colonial—Rain Goods and Fittings. Royal-Apex Mfg. Co., Inc., Brooklyn, N. Y.

Columbia—Air Freshening Compounds. Carbide and Carbon Chemicals Co., Div. Union Carbide & Carbon Corp., New York, N. Y.

Columbia—Water Heaters. National Steel Construction Co., Inc., Logansport, Ind.

Columbia—Furnaces. Sandberg Mfg. Co., Portland, Ore.

Columbia—Insulation. United States Mineral Wool Co., Stanhope, N. J.

Columbia—Ventilators. E. E. Souther Iron Co., St. Louis, Mo.

Combi-Matic—Gas-Oil Burner. Siemon Mfg. Co., Grandview, Kansas City, Mo.

Combustioneer—Gas & Oil Burners, Furnaces, Humidifiers, & Stokers. Steel Products Engineering Co., Combustioneer Div., Springfield, Ohio.

Comet—Gas Water Heaters. Hoyt Heater Co. of No. Calif., Oakland, Calif.

Comet—Hoists. Chisholm-Moore Hoist Div., Columbus McKinnon Chain Corp., Tonawanda, N. Y.

Comfort Flo—Furnaces. Montag Stove & Furnace Works, Portland, Ore.

Co-Min-Co—Insulating Cement. United States Mineral Wool Co., Stanhope, N. J.

Commander—Furnaces. Peerless Furnace and Foundry Co., Indianapolis, Ind.

Commander—Furnaces. Round Oak Co., Inc., of Indiana, Dowagiac, Mich.

Compact—Blowers. Bishop & Babcock Mfg. Co., Cleveland, Ohio.

Compact—Oil Burners. Breeze Corp., Inc., Newark, N. J.

Compacto—Furnaces. Mammoth Furnace Co., St. Paul, Minn.

Compass V-Steel—V-Belts. Goodyear Tire & Rubber Co., Inc., Akron, Ohio.

Concave—Bearings. Shafer Bearing Div., Chain Belt Co., Downers Grove, Ill.

Condor—Belts. Raybestos-Manhattan, Inc., Passaic, N. J.

Confex—Solder. General Plate Div., Metals & Controls Corp., Attleboro, Mass.

Coni-Vane—Ventilators. Allen Cooler & Ventilator Inc., Rochester, Mich.

Connecticut—Hand Brakes. W. Whitney Stueck, Inc., Old Saybrook, Conn.

Conterflow—Furnaces. Western Blower Co., Seattle, Wash.

Continental—Water Heaters. National Steel Construction Co., Inc., Logansport, Ind.

Contour-Aire—Furnaces and Oil Burners. Roscoe Mfg. Co., Seattle, Wash.

Controlaire—Furnaces. St. Louis Furnace Mfg. Co., St. Louis, Mo.

Convactor—Furnaces. L. J. Mueller Furnace Co., Milwaukee, Wis.

Convactor—Humidifiers. Maid-O'-Mist, Inc., Chicago, Ill.

Convertible—Furnaces. Marshall Furnace Co., Marshall, Mich.

Convento—Ventilators. C. L. Ammerman Co., Minneapolis, Minn.

Coolair—Evaporative Cooler Units. Belmetals Mfg. Co., Belmont, Calif.

Coolair—Fans and Ventilators. American Coolair Corp., Jacksonville, Fla.

Cool-A-Matic—Window Air Conditioners. Automatic Firing Corp., St. Louis.

Cooler-Aire—Air Conditioning Unit. Baltimore Porcelain Steel Corp., Baltimore, Md.

Coolero—Ventilators. Hirschman-Pohle Co., Inc., LeRoy, N. Y.

Cooltong—Brazing Torches. Lincoln Electric Co., Cleveland, O.

Cooper-Kote—Sheet Metal Paint. Coopers Creek Chemical Corp., West Conshohocken, Pa.

Copper-Alloy—Sheets. Inland Steel Co., Chicago, Ill.

Copper-Brite—Metal Finishers. Rossaul Co., New York, N. Y.

Copper-Fabric—Flashing. Wasco Flashing Co., Cambridge, Mass.

Coppersal—Flashing. Wasco Flashing Co., Cambridge, Mass.

Copperskin—Flashings, Waterproofing. Angier Corp., Framingham, Mass.

Copper Steel—Copper Bearing Sheets. United States Steel Corp., Pittsburgh, Pa.

Cop-R-Loy—Copper Bearing Steel Sheets. Wheeling Corrugating Corp., Wheeling, W. Va.

Cop-R-Tex—Thru-Wall Flashing. Wasco Flashing Co., Cambridge, Mass.

Coral Designs—Controls. Henry G. Dietz Co., Long Island City, N. Y.

Corinco—Insulation. Cork Insulation Co., Inc., New York, N. Y.

Corkboard—Insulation. Armstrong Cork Co., Lancaster, Pa.

Corkboard—Insulation. Mundet Cork Corp., Brooklyn, N. Y.

Corktite—Insulation. Meadows, Inc., W. R., Elgin, Ill.

Coronado—Window Air Conditioners. General Appliance Corp., Greenville, Mich.

Corozone—Ozone Apparatus. Coraire Heater Corp., Cleveland, Ohio.

Corrulux—Plastic Panels. Libby-Owens Ford Glass Co., Toledo, O.

Cor Ten—Steel Plates. Tennessee Coal & Iron Div., U.S. Steel Corp., Fairfield, Ala.

Corvette—Water Heaters. Security Mfg. Co., Kansas City, Mo.

Cottrell Process—Collectors. Western Precipitation Corp., Los Angeles, Calif.

Counterflo—Direct Fired Heaters. Dravo Corp., Pittsburgh, Pa.

Covotop—Roofing Felt. Owens-Corning Fiberglas Corp., Toledo, O.

Cozy—Furnaces. Advance Furnace Co., Wichita, Kans.

CP—Electric Tools, Hoists. Chicago Pneumatic Tool Co., New York, N. Y.

C/R—Metal Working Mallets. Chicago Rawhide Mfg. Co., Chicago, Ill.

Cradle-Calker—Caulking Guns. Vital Products Mfg. Co., Cleveland, O.

Crane Basmor—Furnaces. Bastian-Morley Co., Inc., LaPorte, Ind.

Crane-Line—Furnaces, Stokers. Crane Co., Chicago, Ill.

Crary's—Cut-Offs. Galvan Mfg. Co., New Albany, Ind.

Crest—Water Heaters. Day & Night Div., Affiliated Gas Equipment, Inc., Monrovia, Calif.

Crestoloy—Tools. Crescent Tool Co., Jamestown, N. Y.

Criss Cross—Furnace Brushes. Worcester Brush & Scraper Co., Div. Mason Worcester Co., Worcester, Mass.

Cromaloy—Stainless Soldering Flux. Linde Air Products Co., New York, N. Y.

Crosley—Window Air Conditioners. Avco Mfg. Co., Crosley and Bendix Home Appliances, Cincinnati, O.

Cross-Flo—Refrigerant Dehydrators. Remco, Inc., Zelenople, Pa.

Crusader—Oil Burners, Bethlehem Fdry. & Mach. Co., Bethlehem, Pa.

Cupromatic—Electric Water Heaters. Cuprometal Mfg. Corp., Corona, N. Y.

Cushioned Power—Solenoid Valves. White-Rodgers Electric Co., St. Louis, Mo.

Custom-Aire—Furnaces. Heating Equipment Mfg. Co., San Francisco, Calif.

Customized—Electric Motors. Jack & Heintz, Inc., Cleveland, O.

Cyclo-Core—Rotary Drill Bits. New England Carbide Tool Co., Inc., Cambridge, Mass.

Cyclo-Twist—Masonry Drill Bits. New England Carbide Tool Co., Inc., Cambridge, Mass.

Cyclone—Hoists. Chisholm-Moore Hoist Div., Columbus McKinnon Chain Corp., Tonawanda, N. Y.

D

Dampchek—Waterproofing. American Fluoresit Co., Inc., Cincinnati, Ohio.

Damperset—Duct Dampers. Elgen Mfg. Corp., Long Island City, N. Y.

Damtube—Waterproofing. Speco, Inc., Cleveland, O.

Da-Nite Acratherm—Thermostats. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.

Daptoblu—Gas Burners. Beck Engineering Combustion Kompany, St. Louis, Mo.

Dasco—Punches, Tools. Damascus Steel Products Corp., Rockford, Ill.

D & D—Hole Cutter. N. J. Frayn Co., Redwood City, Calif.

Dearbornaire—Evaporative Coolers. Dearborn Stove Co., Dallas, Tex.

Dearsol—Fuel Oil Tank Solvents. Dearborn Chemical Co., Chicago, Ill.

Debecote—Paint. Debevoise Co., Brooklyn, N. Y.

Decoseal—Paints. Debevoise Co., Brooklyn, N. Y.

Defensite Tuf Quik—Paint. Wilbur & Williams Co., Brighton, Mass.

Deflecto—Baffles. Insulation & Refractories Co., Williamson, N. Y.

Deflectrol—Duct Turning Vanes. Barber-Colman Co., Rockford, Ill.

Dehydratone—Waterproofing. A. C. Horn Co., Inc., Long Island City, N. Y.

Deion—Time Switches. Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Delco-Heat—Oil Burners and Furnaces. Delco Appliance Div., General Motors Corp., Rochester, N. Y.

Delde—Power Roll Forming Machine. Doelger & Kirsten, Inc., Milwaukee, Wis.

Delphos—Ridge Roll and Roofing. New Delphos Mfg. Co., Delphos, Ohio.

Deoxidine—Metal Protecting Paint. American Chemical Paint Co., Ambler, Pa.

Dereka—Paint. Debevoise Co., Brooklyn, N. Y.

Desert Ray—Furnaces. Hirsh Mfg. Co., Garland, Texas.

Desomatic—Dehumidifiers. Daly, Merritt & Sullivan, Inc., Falls Church, Va.

De-Sta-Co—Blower Housings and Stampings. Detroit Stamping Co., Detroit, Mich.

Detroit LoStoker—Stokers. Detroit Stoker Co., Detroit, Mich.
 Detroit Roto Grate Stoker—Stokers. Detroit Stoker Co., Detroit, Mich.
 Detroit RotoStoker—Overfeed Spreader Stoker. Detroit Stoker Co., Detroit, Mich.
 Detroit UniStoker—Stokers. Detroit Stoker Co., Detroit, Mich.
 Dexion—Angles. Acme Steel Co., Chicago, Ill.
 Dexter Heat Valve—Ventilators. Swartwout Co., Cleveland, Ohio.
 DFC—Insulating Cement. Denver Fire Clay Co., Denver, Colo.
 Di-Acro—Sheet Metal Working Machines. O'Neil-Irwin Mfg. Co., Lake City, Minn.
 Dial—Damper Regulator. Martens & Stormoen Co., West Quincy, Mass.
 Dial-Set—Stokers. Kol-Master Corp., Oregon, Ill.
 Diamond—Caulking Compounds. Paint. Thompson & Co., Oakmont, Pa.
 Diamond—Smoke Pipe Dampers. Adams Co., Dubuque, Iowa.
 Diamond H—Controls. Switches. Hart Mfg. Co., Hartford, Conn.
 Dickrope—V-Belts. R. & J. Dick Co., Passaic, N. J.
 Diffusaire—Air Diffusers. Hart & Cooley Mfg. Co., Holland, Mich.
 Dilecto Sheets—Non-Metallic Sheets. Continental Diamond Fibre Co., Newark, Del.
 Directrol—Duct Turning Vanes. Register & Grille Mfg. Co., Inc., Brooklyn, N. Y.
 Divco—Brushes, Flashing, Flux, Sheets, Solder. Division Lead Co., Summit, Ill.
 Dixie—Water Heaters. Hotstream Heater Co., Cleveland, Ohio.
 Dixie Star—Water Heaters. Hotstream Heater Co., Cleveland, Ohio.
 Do-All—Electric Hammer. Wodack Electric Tool Corp., Chicago, Ill.
 Dodge-Timken—Bearings. Dodge Mfg. Corp., Mishawaka, Ind.
 Domestigas—Gas Conversion Burners. Thermex Engineering Co., Chicago, Ill.
 Domex—Ventilators. Penn Ventilator Co., Philadelphia, Pa.
 Do-Mor—Adj. Keyhole Saw. Pioneer Tool Co., Racine, Wis.
 Dorex—Odor Absorbers. Connor Eng. Corp., Danbury, Conn.
 Double Diamond—Psychrometers, Relays, Switches, Thermometers. H-B Instrument Co., Philadelphia, Pa.
 Double-Duty—Oil Burners. Breeze Corps., Inc., Newark, N. J.
 Double-Seal—Humidifier Fittings. Hays Mfg. Co., Erie, Pa.
 Dover—Rain Goods and Hangers. Ohio Wire Products Co., Dover, Ohio.
 DovRloy—Sheets. Reeves Steel & Mfg. Co., Dover, Ohio.
 Dowmetal—Plates, Sheet, Light Weight Shapes, Welding Rod, Sheets. Dow Chemical Co., Midland, Mich.
 Downflame—Gas-Oil Burners, Floor Furnaces. United Air Heaters, Inc., Seattle, Wash.
 Downflo—Furnaces. United Air Heaters, Inc., Seattle, Wash.
 Draft-A-Justor—Barometric Dampers. Preferred Utilities Mfg. Corp., New York, N. Y.
 Draft-A-Lite—Barometric Dampers. Breeze Burners, Santa Fe, N. Mex.
 Draftender—Gravity Furnace Control Systems. Penn Controls, Inc., Goshen, Ind.
 Draft Korektor—Damper. Cole-Sewell Engineering Co., Minneapolis, Minn.
 Draft-O-Stat—Barometric Dampers. Hotstream Heater Co., Cleveland, Ohio.

Drafrite—Draft Gages. Bacharach Industrial Instrument Co., Pittsburgh, Pa.
 Drifilter—Filters. American Air Filter Co., Inc., Louisville, Ky.
 Drifilter—Filters. Aigard Mfg. Co., Chicago, Ill.
 Dri-Lap—Sheet Metal Roofing. Newport Steel Corp., Newport, Ky.
 Dri-N-Tite—Roof Cement. A. C. Horn Co., Inc., Long Island City, N. Y.
 Drive-it—Powder Charged Power Hammers. Powder Power Tool Corp., Portland, Oreg.
 Drive-Rite—Aluminum Nails. Independent Nail & Packing Co., Bridgewater, Mass.
 Dry Kiln—Furnace Cement. Philip Carey Mfg. Co., Cincinnati, Ohio.
 Dryola—Incinerators. General Engineering Co., Bay City, Mich.
 Dual-A-Fire—Gas-Oil Combination Burners and Furnaces. Automatic Firing Corp., St. Louis, Mo.
 Dual-Clone—Blow Pipe Collectors. Day Co., Minneapolis, Minn.
 Dual-Dial—Tank Gauge. Rochester Mfg. Co., Inc., Rochester, N. Y.
 Dual-Matic—Gas-Oil Combination Burners. J. C. Junior Co., Kansas City, Mo.
 Dualvent—Roof Ventilators. Octagon Ventilator Co., Chicago, Ill.
 Dubblseal—Sheeting. Masonite Corp., Chicago, Ill.
 Duclean—Metal Cleaner. E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.
 Duco—Paint. E. I. du Pont de Nemours & Co., Wilmington, Del.
 Ductboard—Prefabricated Ducts. Sall Mountain Co., Hamilton, Ohio.
 Duct Master—Notching Machines. Engel Sheet Metal Equipment, Inc., St. Louis, Mo.
 Duct Soundliner—Duct Insulation. Baldwin-Hill Co., Trenton, N. J.
 Ducturns—Vanes. Tuttle & Bailey, Inc., New Britain, Conn.
 Ductype—Fans. South Bend Air Products, Inc., South Bend, Ind.
 Dulux—Enamels, Lacquers and Paints. E. I. du Pont de Nemours & Co., Wilmington, Del.
 Duo-Gyrovan—Fans. Dual-Air Fan Co., Hampshire, Ill.
 Duplex—Roofing Cement. Johns-Manville, New York, N.Y.
 Duplex Twin—Vibration Isolating Pads. Korfund Co., Long Island City, N.Y.
 DuraBilt—Gravity Registers. Auer Register Co., Cleveland, Ohio.
 Duraflex—Stokers. Canton Stoker Corp., Canton, Ohio.
 Dura-Flex—Directional Flow Registers. Auer Register Co., Cleveland, Ohio.
 Dura-Line—Registers. Auer Register Co., Cleveland, Ohio.
 Duralite—Refractories. Chicago Fire Brick Co., Chicago, Ill.
 Duranite—Paint. Atlas Powder Co., North Chicago, Ill.
 Dura-Sheen—Flues and Roof Jacks. Baltimore Porcelain Steel Corp., Baltimore, Md.
 Duridine—Chemical Cleaner. American Chemical Paint Co., Ambler, Pa.
 Duroblade—Duct Damper Regulators. Duro-Dyne Corp., New Hyde Park, L. I., N. Y.
 Duroglas—Gas Water Heaters. General Water Heater Corp., Burbank, Calif.
 Durolite—Insulation. Insulite Div., Minnesota and Ontario Paper Co., Minneapolis, Minn.
 Duronze—Plates and Sheets. Bridgeport Brass Co., Bridgeport, Conn.
 Dust Arrester—Blowpipe Collectors. American Air Filter Co., Inc., Louisville, Ky.

Dustay—Throwaway Air Filters. Air-Maze Corp., Cleveland, Ohio.
 Dust Kop—Dust Collectors. Agat-Detroit Co., Ann Arbor, Mich.
 DustRid—Dust Recovery Bags. Master-Craft Supply Co., Inc., Haverstraw, N. Y.
 Dustronic—Electrostatic Filters. Radex Corp., Chicago, Ill.
 DustStop—Filters. Owens-Corning Fiberglas Corp., Toledo, Ohio.
 Dutch Boy—Paints, Solder. National Lead Co., New York, N. Y.
 Dux-Sulation—Duct Insulation. Grant Wilson, Inc., Chicago, Ill.
 Dycon—Filters. Continental Air Filters, Inc., Louisville, Ky.
 Dynafan—Ventilators. Penn Ventilator Co., Philadelphia, Pa.
 Dynaflo—Blowers and Fans. South Bend Air Products, Inc., South Bend, Ind.
 Dyna-Flash—Electric Drills. Milwaukee Electric Tool Corp., Milwaukee, Wis.
 Dyna Line—Electric Motors. Brown-Brockmeyer Co., Inc., Dayton, O.
 Dynetric—Balancing Equipment. Gisholt Machine Co., Madison, Wis.
 Dynoid—Controls. Soreng Mfg. Co., Schiller Park, Ill.

E

Eagle Super "66"—Furnace Insulation. Eagle-Picher Co., Cincinnati, Ohio.
 Eagle Super temp—Duct Insulation. Eagle-Picher Co., Cincinnati, Ohio.
 Easternoil—Oil Burners. Eastern Oil & Equipment Co., Portland, Me.
 Easy-Flo—Solder. Handy & Harman, New York, N. Y.
 Easy-Slip—Gutters. La Crosse Steel Roofing & Corrugating Co., La Crosse, Wis.
 E. C. Cord—V-Belts. Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
 EC&M—Controls. Electric Controller & Mfg. Co., Cleveland, O.
 Echo—Ceiling Ventilators. Elgo Shutter & Mfg. Co., Detroit, Mich.
 Eclipse—Refrigerating Compressors. Frick Co., Waynesboro, Pa.
 Econocol—Stokers. Cotta Transmission Co., Rockford, Ill.
 Econo-miser—Oil Burners. Green Colonial Furnace Co., Des Moines, Iowa.
 Economite—Gas Burners. Mid-Continent Metal Products Co., Chicago, Ill.
 Economy—Power Hack Saws. F. L. Robertson, Buffalo, N. Y.
 Economy—Furnaces. International Heater Co., Utica, N. Y.
 Economy—Adjustable Buffing Hoods. Kirk & Blum Mfg. Co., Cincinnati, Ohio.
 Economy—Ventilators. Arex Company, Chicago, Ill.
 Economy—Squaring Shears. Acme Equipment Co., Inc., Chicago, Ill.
 Economy—Water Heaters. Continental Water Heater Co., Los Angeles, Calif.
 Edge-Master—Sheet Metal Working Machines. Engel Sheet Metal Equipment, Inc., St. Louis, Mo.
 Edgesal—Filters. Wilson & Co., Inc., Chicago, Ill.
 Efficco—Ventilators. Hirschman-Pohle Co., LeRoy, N. Y.
 Efficco Louver—Ventilators. Hirschman-Pohle Co., Inc., LeRoy, N. Y.
 EFM—Burners, Furnaces, and Stokers. Electric Furnace-Man, Inc., Emmaus, Pa.
 Elermann—Roofers' Tools. Efsco Products Co., Syracuse, N.Y.

Elastic—Roof Cement, Philip Carey Mfg. Co., Cincinnati, Ohio.
 Elastikote—Paint. Tropical Paint Co., Cleveland, Ohio.
 Elasto-Rib—Vibration Isolating Pads, Korfund Co., Inc., Long Island City, N. Y.
 El Capitan—Water Heaters, Southwestern Heater Corp., Dallas, Texas
 Elcon—Stationary Louvers, Elgo Shutter & Mfg. Co., Detroit, Mich.
 Electric Aire—Furnaces, Gray & Dudley Co., Nashville, Tenn.
 Electric City—Gutter Forming Machines, F. L. Robertson, Buffalo, N. Y.
 Electric Janitor—Draft Damper Motors, Hand Fired Control Systems, Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Electrimatic—Solenoid Valves, Jas. P. Marsh Corp., Skokie, Ill.
 Electro-Cell—Filters, American Air Filter Co., Inc., Louisville, Ky.
 Electroflo—Solenoid Valves, Hays Mfg. Co., Erie, Pa.
 Electro-Flux-Stik—Soldering Flux, Lake Chemical Co., Chicago, Ill.
 Electro Hot—Water Heaters, Red Spot Electric Co., Tacoma, Wash.
 Electrolaire—Air Conditioning Furnaces, Electrol Burner Mfg. Co., Rutherford, N. J.
 Electro-Matic—Filters, American Air Filter Co., Inc., Louisville, Ky.
 Electromaze—Electrostatic Filters, Air-Maze Corp., Cleveland, Ohio.
 Electro-Mist—Dust Collectors, American Air Filter Co., Inc., Louisville, Ky.
 Electro-PL—Filters, American Air Filter Co., Louisville, Ky.
 Electro-Sheet—Roofing, American Brass Co., Waterbury, Conn.
 Electro-Valve—Solenoid Valves, Sciaky Bros., Inc., Chicago, Ill.
 Electro-Wind—Ventilators, Allen Cooler & Ventilator Inc., Rochester, Mich.
 Electrunit—Tubing, Steel & Tubes Div., Republic Steel Corp., Cleveland, Ohio.
 Elgin—Louvers and Shutters, Elgo Shutter & Mfg. Co., Detroit, Mich.
 Elgin—Pneumatic Hammers, Brazing Torches and Welders, Borm Mfg. Co., Elgin, Ill.
 EM—Motors, Electric Machinery Mfg. Co., Minneapolis, Minn.
 EMC—Motors, Electric Motor Corp., Racine, Wis.
 Empire—Mallets, Greene, Tweed & Co., North Wales, Pa.
 Empire—Refractories, A. P. Green Fire Brick Co., Mexico, Mo.
 Enamelclad—Roofing Paint, Philip Carey Mfg. Co., Cincinnati, Ohio.
 Enduro—Stainless Steel Sheets, Republic Steel Corp., Cleveland, Ohio.
 Epc—Perforated Metals, Erdle Perforating Co., Rochester, N. Y.
 EPCO—Welding Timer, Electronic Products Co., Geneva, Ill.
 Era—Furnaces, Excelsior Steel Furnace Co., Chicago, Ill.
 Era Exl-Air—Furnaces, Excelsior Steel Furnace Co., Chicago, Ill.
 Eproduct—Insulation, Ehret Magnesia Mfg. Co., Valley Forge, Pa.
 Esco—Smoke Pipe Dampers, Eselgroth & Co., Newark, N. J.
 Esso—Furnaces, Oil Burners, Gilbert & Barker Mfg. Co., West Springfield, Mass.
 Eternit—Non-Metallic Sheets, Ruberoid Co., New York, N. Y.
 Eternium—Paint, Barrett Div., Allied Chemical & Dye Corp., New York, N. Y.

Eutec Arc—Arc Welders, Eutectic Welding Alloys Corp., Flushing, N. Y.
 EutecRods—Welding Rods, Eutectic Welding Alloys Corp., Flushing, N. Y.
 Eutec Torch—Torches, Eutectic Welding Alloys Corp., Flushing, N. Y.
 Eutector—Flux, Eutectic Welding Alloys Corp., Flushing, N. Y.
 EutecTodes—Welding Rod, Eutectic Welding Alloys Corp., Flushing, N. Y.
 Eveco—Barometric Draft Controls, Empire Ventilation Equipment Co., Long Island City, N. Y.
 Even-Temp—Furnaces, Northwest Metal Products, Inc., Seattle, Wash.
 Everdur—Plates, Sheets, Welding Rod, American Brass Co., Waterbury, Conn.
 Everedy—Oil Burners, Mt. Hawley Mfg. Co., Peoria, Ill.
 Everjet—Roofing Paint, Barrett Div., Allied Chemical & Dye Corp., New York, N. Y.
 Everlasting—Fastenings, H. M. Harper Co., Morton Grove, Ill.
 Exidust—Dust Collectors, Allen Billmyre Div., Lamson Corp., Syracuse, N. Y.
 Ex-Lite—Tin Plate Steel Sheets, Republic Steel Corp., Cleveland, Ohio.
 E-Z—Soot Remover, Norman Chemical Co., St. Paul, Minn.
 E-Z—Power Hack Saws, Merchandising and Mfg. Associates, Inc., Lancaster, Pa.
 E-Z Arc—Arc Welders, Will-Weld Mfg. Co., Omaha, Nebr.
 E-Z Dux—Duct Connections, St. Clair Rubber Co., Marysville, Mich.
 E-Z-Hung—Eaves Trough and Gutters, Riffin Metal Products, Inc., Lansing, Mich.
 E-Z-On—Damper Clips and Tips, Damper Regulators, M. A. Gerrett Corp., Milwaukee, Wis.
 EZ Wash—Air Filters, Continental Air Filters, Inc., Louisville, Ky.

F

Fabricote—Waterproofing, Wasco Flashing Co., Cambridge, Mass.
 Fabrikated—Faces, Grilles, Registers, Independent Register Co., Cleveland, Ohio.
 Fairweather—Blower-Washer Units, Fur-blo Co., Hermansville, Mich.
 Falco—Sheets, Fairmont Aluminum Co., Fairmont, W. Va.
 Fan-Air—Gas Burners, Mettler Co., Inc., The Los Angeles, Calif.
 Fan-Air—Baseboard Diffusers, Premier Furnace Co., Dowagiac, Mich.
 Far-Air—Evaporative Coolers, Filters, Farr Co., Los Angeles, Calif.
 Parco—Soldering Flux, Farrelloy Co., Inc., Philadelphia, Pa.
 Fargail—Soldering Flux, Farrelloy Co., Philadelphia, Pa.
 Farsol—Soldering Flux, Farrelloy Co., Inc., Philadelphia, Pa.
 FauceHot—Water Heaters, Bastian-Morley Co., Inc., La Porte, Ind.
 F & E—Underfeed Stokers, Flynn & Emrich Co., Baltimore, Md.
 Featherfin—Coils, L. J. Wing Mfg. Co., Linden, N. J.
 Federal—Oil Filters, Tool Industries, Inc., Detroit, Mich.
 Federal—Refractories, United States Stoneware Co., New York, N. Y.
 F Electric—Fan Roof Ventilators, Hirschman-Pohle Co., Inc., LeRoy, N. Y.
 Feltex—Roofing Felt, Philip Carey Co., Cincinnati, Ohio.
 Fenestra—Windows, Detroit Steel Products Co., Detroit, Mich.

Fenn's Rotary—Roof Ventilators, Waverly Heating Supply Co., Boston, Mass.
 Ferro—Soldering Flux, Linde Air Products Co., New York, N. Y.
 Ferrobord—Steel Roofing, Truscon Steel Div., Republic Steel Corp., Youngstown, O.
 Ferro-Therm—Reflective Insulation, American Flange & Mfg. Co., Inc., New York, N. Y.
 Fibercote—Roofing Paint, Midland Paint & Varnish Co., Cleveland, Ohio.
 Fiberglass—Insulation, Owens-Corning Fiberglass Corp., Toledo, Ohio.
 Fiberkote—Roofing Cement, National Mfg. Corp., Tonawanda, N. Y.
 Fiberlite—Insulation, Insulite Div., Minnesota and Ontario Paper Co., Minneapolis, Minn.
 Fiberock—Roofing Felt, Philip Carey Mfg. Co., Cincinnati, Ohio.
 Fiber Seal—Paint, Midland Paint & Varnish Co., Cleveland, O.
 Fiber Self Seal—Air Filters, Research Products Corp., Madison, Wis.
 Fibre Coating—Roofing Paint, Philip Carey Mfg. Co., Cincinnati, Ohio.
 Fibre Sheets—Non-Metallic Sheets, Continental-Diamond Fibre Co., Newark, Del.
 Fibronized—Plastic Tubing, Irvington Varnish & Insulator Co., Irvington, N. J.
 Fil-thru—Oil Tank Gauge, Applied Mechanics Co., Boston, Mass.
 Filtered Aire—Blower-Filters, American Foundry & Furnace Co., Bloomington, Ill.
 Filterpure—Coils, Betz Corp., Hammond, Ind.
 Filt-R-It—Air Filters, Himelblau Associates, Inc., Chicago, Ill.
 Findlay—Stokers, Central Rubber & Steel Corp., Findlay, Ohio.
 Fin-Flex—Directional Flow Registers, Auer Register Co., Cleveland, Ohio.
 Finger-Strap—Insulation Fastenings, Gerrard & Co., A. J., Melrose Park, Ill.
 Finntense—Conversion Gas Burner, Jerry Finn Engineers, St. Paul, Minn.
 Fire Ball—Gas Burners, Johnson Gas Appliance Co., Cedar Rapids, Iowa.
 Firebox—Combustion Chambers, Sid Harvey, Inc., Valley Stream, N. Y.
 Fire-Crest—Conversion Burners, Modern Controls Corp., Centerline, Mich.
 Firecrete—Refractories, Johns-Manville, New York, N. Y.
 Fire-Guard—Stokers, Eddy Stoker Corp., Chicago, Ill.
 Fire-Hearth—Castable Refractories, Fireline Stove & Furnace Lining Co., Chicago, Ill.
 Fireite—Cement, Johns-Manville, New York, N. Y.
 Fireline—Furnace Firepot Lining, Fireline Stove & Furnace Lining Co., Chicago, Ill.
 Firelite—Refractories, Fireline Stove & Furnace Lining Co., Chicago, Ill.
 Fire-Swirl—Baffles, Zeh Co., Inc., Passaic, N. J.
 Fire Valve—Roof Ventilator and Fire Valve, Swartwout Co., Cleveland, O.
 Fireye—Controls, Combustion Control Div., Electronics Corp. of America, Boston, Mass.
 Firma—Ventilators, Hirschman-Pohle Co., Inc., LeRoy, N. Y.
 Firomatic—Fuel Oil Filters, Vent Caps, Oil Burner Fittings, Tank Gauges, Morse-Smith-Morse Co., Watertown, Mass.

Fitrite—Gutter Accessories, Skylight Lifts, Tools. David Levow, or Rival Strap Corp., New York, N. Y.

Fixit—Roof Cement. National Mfg. Corp., Tonawanda, N. Y.

Flame-Otol—Controls. Wheelco Instruments Div., Barber-Colman Co., Rockford, Ill.

Flash-Off No. 99—Industrial Finish. Acme White Lead & Color Works, Detroit, Mich.

Flash-Rite—Flashing. Figge Co., Chicago, Ill.

Flatjet—Water Nozzles. Spraying Systems Co., Bellwood, Ill.

Flatpak—Prefabricated Ducts and Fittings. Viking Mfg. Corp., Cleveland, Ohio.

Fleet Line—Electric Motors. Brown-Brockmeyer Co., Inc., Dayton, O.

Fleetweld—Welding Rod. Lincoln Electric Co., Cleveland, Ohio.

Fleetwelder—Arc Welders. Lincoln Electric Co., Cleveland, Ohio.

Flex-Tube—Draft Gauges. F. W. Dwyer Mfg. Co., Chicago, Ill.

Flexarc—Arc Welders. Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Flexcell—Bases and Pads. Celotex Corp., Chicago, Ill.

Flexdyte—Non-metallic Duct Fittings. Flexible Tubing Corp., Guilford, Conn.

Flexiblac—Paint. Samuel Cabot, Inc., Boston, Mass.

Flexi-Duct—Duct Connections. Grant Wilson, Inc., Chicago, Ill.

Flexon—Flexible Metal Hose and Fittings. Flexonics Corp., Maywood, Ill.

Flexstone—Roofing Felt. Johns-Manville, New York, N. Y.

Flextop—Roofing Paint. Philip Carey Mfg. Co., Cincinnati, Ohio.

Floating Air—Air Conditioning Units. Friedrich Refrigerators, Inc., San Antonio, Tex.

Flo-Co—Furnaces and Gas and Oil Burners. Floral City Heater Co., Monroe, Mich.

Flo-Warm—Gas Burners, Furnaces. Williamson Heater Co., Cincinnati, Ohio.

Flo-Par—Water Heaters. Southwestern Heater Corp., Dallas, Texas.

FloRite—Air Velocity Meters. Bacharach Industrial Instrument Co., Pittsburgh, Pa.

Florite—Desiccant—Dehumidifier. Floridin Co., Tallahassee, Fla.

Flosol—Soldering Flux. American Chemical Paint Co., Ambler, Pa.

Flowing Heat—Furnaces. Sam Daniels Mfg. Co., Inc., Hardwick, Vt.

Flow-Temp—Air Conditioning Units. Acme Industries, Inc., Jackson, Mich.

Flualyzer—Portable CO₂ Analyzer. Chas. Englehard, Inc., East Newark, N. J.

Fluresal—Waterproofing. American Fluresit Co., Inc., Cincinnati, Ohio.

Fluxrite—Flux. National Lead Co., New York, N. Y.

Flux-Stik—Soldering Flux. Lake Chemical Co., Chicago, Ill.

Foamglas—Insulation. Pittsburgh Plate Glass Co., and Pittsburgh Corning Corp., Pittsburgh, Pa.

Fontoheat—Floor Furnaces. Sunshine Mantle Co., Chanute, Kans.

Forbes Amvent—Ventilators. Western Engineering & Mfg. Co., Venice, Calif.

Forbes Econovent—Ventilators. Western Engineering & Mfg. Co., Venice, Calif.

Forbes Syphonair—Ventilators. Western Engineering & Mfg. Co., Venice, Calif.

Formula 67—Sheet Metal Paint. Babbitt Chemical Specialties Co., New Bedford, Mass.

Fosco—Water Heaters. F. O. Schoedinger, Columbus, Ohio.

4-Way-Flow—Registers. United States Register Co., Battle Creek, Mich.

Fracto-Crete—Castable Refractories. Ramtite Co., Chicago, Ill.

Free Exhaust—Roof Ventilators. Burt Mfg. Co., Akron, Ohio.

Free Flow—Roof Ventilators. Burt Mfg. Co., Akron, Ohio.

Freeman—Gas and Oil Burners, Furnaces, Air Conditioning Units, Incinerators, Stokers. Illinois Iron & Bolt Co., Chicago, Ill.

Freeport—Oil Burners. Arrow Foundry Co., Freeport, Ill.

Freightmaster—Warehouse Trucks. Yale & Towne Mfg. Co., Philadelphia, Pa.

Freon—Refrigerants. E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.

Fresh-Air Maker—Fans. Schwitzer-Cummins Co., Indianapolis, Ind.

Fridg-A-Fire—Air Conditioning Units. Automatic Firing Corp., St. Louis, Mo.

Frost-Tite—Copper Tube Fittings. Remco, Inc., Zelienople, Pa.

Fuelatrol—Oil Burners, Furnaces and Stokers. Premium Coal & Oil Co., Cincinnati, Ohio.

Fuel-Saver—Draft Regulator. Walker Mfg. & Sales Corp., St. Joseph, Mo.

Fueltone—Oil Tank Solvent. Ampion Corp., Long Island City, N. Y.

Fuel-tron—Fuel Oil Tank Solvents. Radiator Specialty Co., Charlotte, N. C.

Fullo—Oil Filters. Commercial Filters Corp., Melrose, Mass.

Fulljet—Water Nozzles. Spraying Systems Co., Bellwood, Ill.

Fulscope—Control Systems. Taylor Instrument Companies, Rochester, N. Y.

Furnacestat—Controls. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.

Fuseair—Diffusers. Aladdin Heating Corp., Oakland, Calif.

Fyr-Fly—Oil Burners. Breeze Corps., Inc., Newark, N. J.

Fyre-Mortar—Insulating Cement. Quigley Co., Inc., New York, N. Y.

Fyrite—CO₂ Analyzers. Bacharach Industrial Instrument Co., Pittsburgh, Pa.

G

G-6—Paint Spray Guns. Eclipse Air Brush Co., Newark, N. J.

Galbestos—Roofing. H. H. Robertson Co., Pittsburgh, Pa.

Galongage—Oil Tank Gauge. Applied Mechanics Co., Boston, Mass.

Galva-Flux—Soldering Flux. London Chemical Co., Chicago, Ill.

Galvaprep—Rust Preventive Chemicals. Neilson Chemical Co., Detroit, Mich.

Galv-Kote—Zinc Paint. Geo. H. Ohmer Co., Dayton, Ohio.

Galv-O-Zinc—Coating, Paint. Blue Ridge Talc Co., Inc., Henry, Va.

Gar Wood—Furnaces. Enico Products, Detroit, Mich.

Gas-A-Fire—Gas Conversion Burners, Gas Furnaces. Automatic Firing Corporation, St. Louis, Mo.

Gasapack—Controls. A-P Controls Corp., Milwaukee, Wis.

Gasaver—Gas Burners. Williamson Heater Co., Cincinnati, Ohio.

Gas Economy—Furnaces. International Heater Co., Utica, N. Y.

Gas Mixer—Furnaces. Floral City Heater Co., Monroe, Mich.

Gas-O-Matic—Gas Burners & Furnaces. Williams Div., Eureka-Williams Co., Div. of Henney Motor Co., Inc., Bloomington, Ill.

Gasweld—Soldering Torches, Soldering Flux, Welding Rods, Arc and Spot Welders. Liquid Carbonic Corp., Industrial Gas Div., Chicago, Ill.

GAT—Paint Spray Guns. Eclipse Air Brush Co., Newark, N. J.

G. B. C.—Blowers and Fans. General Blower Co., Inc., Philadelphia, Pa.

G/C—Controls. General Controls Co., Glendale, Calif.

G-E—Air Conditioning Units, Oil Burners, Heating and Cooling Coils, Compressors, Furnaces. General Electric Co., Bloomfield, N. J.

G-E—Controls, Soldering Coppers, Motors, Transformers, Welders. General Electric Co., Apparatus Sales Div., Schenectady, N. Y.

G-E—Germicidal Lamps. General Electric Co., Cleveland, Ohio.

Gearmotor—Electric Motors. Philadelphia Gear Works, Inc., Philadelphia, Pa.

Gehl—Stokers. Eddy Stoker Corp., Chicago, Ill.

Gemaco—Compressors. General Machinery Co., Spokane, Wash.

Gemware—Hygrometers. Psychrometers, Thermometers. G. M. Mfg. Co., New York, N. Y.

General—Water Heaters. Republic Products Co., Philadelphia, Pa.

Genetron—Refrigerants. General Chemical Div., Allied Chemical & Dye Corp., New York, N. Y.

Genoco—Furnaces, Water Heaters, Oil Burners. General Oil Heating Corp., West New York, N. J.

Germicidal—Sterilizing Lamp. General Electric Co., Cleveland, Ohio.

Giant—Oil Burners. Breeze Corps., Inc., Newark, N. J.

Gibraltar—Furnaces. Ma-Girl Foundry & Furnace Co., Bloomington, Ill.

Gilbarco—Furnaces, Oil & Gas Burners. Gilbert & Barker Mfg. Co., West Springfield, Mass.

Gilbert—Combustion Chambers. R. Rehm, St. Albans, N. Y.

Gilco—Water Heaters. J. L. Gillen Co., Dowagiac, Mich.

Gil Governoret—Gas Pressure Regulating Valves. Gas & Oil Industry Laboratories, Inc., Irvington, N. J.

Gilmer Shock Pad—Vibration Isolating Bases and Pads. New York Belting & Packing Co., Passaic, N. J.

Gil Nohum—Valves. Gas & Oil Industry Laboratories, Inc., Irvington, N. J.

Gilsalume—Paint. United Gilsonite Laboratories, Scranton, Pa.

Gilt Edge—Furnaces, Stokers. Schwab Furnace Co., Milwaukee, Wis.

Gipsy—Direct Fired Heaters. Independence Stove & Mfg. Co., Independence, Mo.

Gladiator—Water Heaters. Continental Water Heater Co., Los Angeles, Calif.

Glasfab—Roofing Felt. Lexsuo, Inc., Cleveland, Ohio.

Glasfloss—Air Filters. Pittsburgh Plate Glass Co., Pittsburgh, Pa.

Glass-mat—Waterproofing Material. Angier Corp., Framingham, Mass.

Glasteel—Water Heaters. Continental Water Heater Co., Los Angeles, Calif.

Glazola—Caulking Compounds. Nebel Mfg. Co., Cleveland, Ohio.

Glo-Cone—Gas Burners. Geisel Mfg., Inc., Elyria, Ohio.

Glo-Fyr—Oil Burners. Breeze Corps., Inc., Newark, N. J.

Glo-Ring—Gas Burners. Lennox Furnace Co., Marshalltown, Iowa.
Glowan—Gas Burners. J. O. Martin Co., Inc., San Francisco, Calif.
Glycolator—Air Sterilizers. Iron City Chemical Co., Glycolator Div., Valencia, Pa.
Glycosol—Air Sterilizers. Iron City Chemical Co., Glycolator Div., Valencia, Pa.
Gnome—Oil Burners. Breeze Corps, Inc., Newark, N. J.
Go-Eze—Damper Regulators. Severson Mfg. & Supply Co., Milwaukee, Wis.
Gohi—Conductor Pipe, Gutters, Fittings and Accessories, Sheet Metal Roofing. Newport Steel Corp., Newport, Ky.
Gold Bond—Insulation. National Gypsum Co., Buffalo, N. Y.
Gold Bond-Gimco—Rock Wool Products, Insulating Cement. National Gypsum Co., Buffalo, N. Y.
Gordon—Furnaces, Gas Burner Pilot Controls, Gas Unit Heaters. Roberts-Gordon Appliance Co., Buffalo, N. Y.
Gordon-Aire—Furnaces. Roberts-Gordon Appliance Co., Buffalo, N. Y.
Gordon Spreader-Flame—Gas and Gas-Oil Burners and Furnaces. Roberts-Gordon Appliance Corp., Buffalo, N. Y.
G-R—Welders. Glenn-Roberts Co., Oakland, Calif.
Gradutrol—Pneumatic Controls. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Grand Rapids—Furnace Cleaner. Doyle Vacuum Cleaner Co., Grand Rapids, Mich.
Granodine—Coating Process. American Chemical Paint Co., Ambler, Pa.
Greaso—Metal Cleaners, Polishers and Finishers. Ampion Corp., Long Island City, N. Y.
Greastop—Filters. Air-Maze Corp., Cleveland, Ohio.
Grillometer—Direct Reading Air Velocity Meter. Detroit Air Conditioning Service Co., Inc., Nashville, Mich.
GS—Hygrometers, Psychrometers, Brazing Torches, Soldering Torches. General Scientific Equipment Co., Philadelphia, Pa.

H

Hacker—Blowers, Furnaces. Standard Heating Equipment Co., Waterloo, Iowa.
Hair Glass—Filters. H. J. Somers, Inc., Detroit, Mich.
Halco—Furnaces. Hall-Neal Furnace Co., Indianapolis, Ind.
Hallmark—Furnaces. Heating Specialties Co., Baltimore, Md.
Hammerkraft—Paint. Hilo Varnish Corp., Everett, Mass.
Hammer-Sets—Expansion Bolts. Rawlplug Co., Inc., New York, N. Y.
Hammock—Throwaway Filters. Lennox Furnace Co., Marshalltown, Ia.
Handlead—Lead Roofing Sheets. National Lead Co., New York, N. Y.
Handnib—Punches. Heinrich Tools, Inc., Racine, Wis.
Handy—Duct, Duct Accessories, Furnace Pipe and Fittings. F. Meyer & Bro. Co., Peoria, Ill.
Handy-Flux—Soldering Flux. Handy & Harman, New York, N. Y.
Hardlead—Lead Roofing. National Lead Co., New York, N. Y.
Hartford-Lincoln—Shear. Lincoln Machine Co., Boston, Mass.
H-B—Gas Conversion Burner. Handley Brown Heater Co., Jackson, Mich.

H&C—Furnace Chain, Damper Clips, Dampers, Ceiling Ventilators, and Registers and Grilles. Hart & Cooley Mfg. Co., Holland, Mich.
Hearth Crete—Refractories. Quigley Co., Inc., New York, N. Y.
Heat-Aid—Refractories. Pyrolite Products Co., Cleveland, Ohio.
Heat Holder—Baffles. Sid Harvey, Inc., Valley Stream, N. Y.
Heat-Lock—Smoke Pipe Dampers. National Fuel Conservation Co., Inc., White Plains, N. Y.
Heat-O-Matic—Gas Burners. Liberty Combustion Corp., Syracuse, N. Y.
Heat-Pak—Oil Burners, Water Heaters. Aldrich Co., Wyoming, Ill.
Heat-Rem—Aluminum Paint. Speco, Inc., Cleveland, Ohio.
Heat-Rite—Gravity Registers. Auer Register Co., Cleveland, Ohio.
Heat Seal—Insulation, Cement. Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Heatwave—Floor and Wall Furnaces. Southwest Mfg. Co., Aurora, Mo.
Heatwell—Gas Burners. Hastings Air Control, Inc., Omaha, Nebr.
Heet-Master—Kettles. Aeroil Products Co., Inc., South Hackensack, N. J.
Hellite—Refractories. Johns-Manville, New York, N. Y.
Helix—Drive Screws, Nails. Hillwood Mfg. Co., Cleveland, Ohio.
Hercu—Welders, Transformers. Hercules Electric & Mfg. Co., Inc., Brooklyn, N. Y.
Heresite—Pipe and Fittings. Heremetal Co., Minneapolis, Minn.
Herkimer—Cleaning Compounds, Water Conditioning Compounds. City Chemical Corp., New York, N. Y.
Hermetic—Furnaces. Favorite Mfg. Co., Piqua, Ohio.
Hevy-Duty—Combustion Chambers. Insulation & Refractories Co., Williamson, N. Y.
Hicycle—Electric Tools. Chicago Pneumatic Tool Co., New York, N. Y.
Hi-Degree—Paint. Cheesman-Elliott Co., Inc., Brooklyn, N. Y.
Hi-Duty—Copper Tube Fittings. Imperial Brass Mfg. Co., Chicago, Ill.
Hi-Duty—Combustion Chambers. Monogram Products Co., Philadelphia, Pa.
Hi-Ex—Roof Ventilators. Penn Ventilator Co., Philadelphia, Pa.
High-Duty—Humidifier Valves. Maid-O'-Mist, Inc., Chicago, Ill.
High-Ten-No. 500—Flux. Industrial Service Laboratories, Milwaukee, Wis.
Hi Heat—Gas Burners. Hansen Gas & Electric Co., San Francisco, Calif.
Hi-Man—Alloy Plates. Inland Steel Co., Chicago, Ill.
Hi-Rate—Gas Water Heaters. General Water Heater Corp., Burbank, Calif.
Hi-Speed—Electric Dimpler. York Electric Tool Co., York, Pa.
Hi-Speed—Nibblers, Slitters, Shears. Libert Machine Co., Green Bay, Wis.
Hi-Speed—Welding and Cutting Apparatus. Dockson Corp., Detroit, Mich.
Hi-Steel—Plates. Inland Steel Co., Chicago, Ill.
H&K—Perforated Metals. Harrington & King Perforating Co., Chicago, Ill.
H-M—Gas Pressure Regulating Valves. Thermac Co., Los Angeles, Calif.
Hoffman—Water Heaters. Clayton & Lambert Mfg. Co., Louisville, Ky.
Hold Heat—Soldering Coppers. Turner Brass Works, Sycamore, Ill.
Holegrip—Sheet Metal Fastenings. Fabricated Products Co., West Newton, Pa.
Holgun—Portable Electric Drills. Black & Decker Mfg. Co., Towson, Md.
Hollinator—Incinerators. Holland Furnace Co., Holland, Mich.

Holly Glen—Water Heaters. Hollywood Water Heater Co., Los Angeles, Calif.
Holtite—Screws. Continental Screw Co., New Bedford, Mass.
Home—Oil Burners. Sid Harvey, Inc., Valley Stream, N. Y.
Homeaire—Air Conditioning Units. York-ShIPLEY, Inc., York, Pa.
Home Weathermaker—Air Conditioning Units. Carrier Corp., Syracuse, N. Y.
Honeycomb—Air Filters. Wilson & Co., Inc., Chicago, Ill.
Horneblende—Roof Cement, Paint, Waterproofing. North American Mogul Products Co., Cleveland, O.
Hornlume—Roofing Paint. A. C. Horn Co., Long Island City, N. Y.
Horn-O-Tone—Paint. A. C. Horn Co., Inc., Long Island City, N. Y.
Hot Blast—Furnaces. Cole Hot Blast Mfg. Co., Chicago, Ill.
Hot Blast—Furnace Cement. Philip Carey Mfg. Co., Cincinnati, Ohio.
Hotco—Furnaces, Oil Burners. Hotentot Co., Inc., Omaha, Nebr.
Hot-Flo—Gas Water Heaters. Hoyt Heater Co. of No. Calif., Oakland, Calif.
Hot Spot—Electric Welders. Acme Electric Welder Co., Los Angeles, Calif.
Howell—Oil Burners. Kol-Master Corp., Oregon, Ill.
Huber—Overfeed Stokers. Flynn & Emrich Co., Baltimore, Md.
Humidean—Cleaning Compound. Carolina Aniline & Extract Co., Charlotte, N. C.
Humidair—Humidifiers. Skilbeck Mfg. Co., Kenosha, Wis.
Humidigraph—Hygrometers. Bristol Co., Waterbury, Conn.
Humidiguide—Humidistats. Taylor Instrument Companies, Rochester, N. Y.
Humidomist—Nozzles. Supreme Elec. Products Corp., Rochester, N. Y.
Humidostat—Humidistats. Johnson Service Co., Milwaukee, Wis.
Humid-u-stat—Humidistat. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Humphrey—Furnaces. General Gas Light Co., Kalamazoo, Mich.
Husky—Presses and Dies. Fallsington Mfg. Co., Fallsington, Pa.
Husky-Lite—Combination Machines. Maplewood Machinery Co., Chicago, Ill.
Hydralt—Waterproofing. Flintkote Co., New York, N. Y.
Hydrator—Gas Pressure Regulating Valves. General Controls Co., Glendale, Calif.
Hydraulic Action—Controls. White-Rodgers Electric Co., St. Louis, Mo.
Hydrocide—Waterproofing. L. Sonneborn Sons, Inc., New York, N. Y.
Hydronon—Waterproofing. Barret Div., Allied Chemical & Dye Corp., New York, N. Y.
Hydro-Temp—Cooling Towers. Acme Equipment Co. of Oklahoma, Inc., Muskogee, Okla.
Hydro-Whirl—Dust Collectors. Peters-Dalton, Inc., Detroit, Mich.
Hy-Duty—Blowers, Blower Wheels. Schwitzer-Cummins Co., Indianapolis, Ind.
Hygrothermograph—Humidity Records. Fries Instrument Div., Bendix Aviation Corp., Baltimore, Md.
Hyduty—Ventilators. Davidson Hyduty Roof Fan Co., Newton, Mass.
Hy-Power—Snips and Shears. Wiss & Sons Co., J., Newark, N. J.
Hyspar—Cements, Caulking Compounds,

Roof Paints. Midland Paint & Varnish Co., Cleveland, Ohio.
Hy-Speed—Hydraulic Tools. Munton Mfg. Co., Franklin Park, Ill.
Hytempite—Furnace Cement. Quigley Co., Inc., New York, N. Y.

I

Ideal—Furnace Brushes. Worcester Brush & Scraper Co., Worcester, Mass.
Ideal—Nozzle extractor. Boston Machine Works Co., Lynn, Mass.
Ideal—Furnace Pipe and Fittings. Riggin Metal Products, Inc., Kankakee, Ill.
Ideal—Roofing Nails. Tennessee Coal and Iron Div., U. S. Steel Corp., Fairfield, Ala.
Ideal—Duct Insulation. Hinde & Dauch Paper Co., Sandusky, Ohio.
Ideal-Aire—Furnaces. American Ideal-Aire Corp., Mineola, N. Y.
IBC—Relays, Switches. Industrial Engineering Corp., Terre Haute, Ind.
Ilgdualgas—Gas Unit Heaters. Ilg Electric Ventilating Co., Chicago, Ill.
Ilgette—Kitchen Exhaust Fans. Ilg Electric Ventilating Co., Chicago, Ill.
Illbronze—Aluminum Paste and Powder. Illinois Bronze Powder Co., Inc., Chicago, Ill.
Immersatherm—Domestic Hot Water Control. Mercoid Corp., Chicago, Ill.
Imperial—Evaporative Coolers. International Metal Products Co., Phoenix, Ariz.
Imperial—Baseboard Diffusers. Vectaire Mfg. Co., Melrose, Mass.
Imperial—Pillow Blocks. Anti-Friction Bearings Co., Los Angeles, Calif.
Inciner—Incinerators. Bowser, Inc., Incineration Div., Cairo, Ill.
Inco—Paints, Sound Deadener. Inter-Coastal Paint Co., East St. Louis, Ill.
Inco—Ventilators. Iona Ventilator Co., Inc., Philadelphia, Pa.
Inconel—Alloy Plates, Sheets, Tubing, Electrodes. International Nickel Co., Inc., New York, N. Y.
Independent — Furnaces. Independence Stove & Mfg. Co., Independence, Mo.
Indian—Furnaces. Dowagiac Steel Furnace Co., Dowagiac, Mich.
Indoor-Outdoor—Thermostats. White-Rodgers Electric Co., St. Louis, Mo.
Industrial Air—Fans, Louvers & Ventilators. Bertram Co., Harvey P., Cincinnati, Ohio.
Inertarc—Arc Welders. Lincoln Electric Co., Cleveland, O.
IngAclad—Plates and Sheets. Reflectal Corp., Subsidiary Borg-Warner Corp., Chicago, Ill.
Ingalls—Furnace Brushes. Worcester Brush & Scraper Co., Div. Mason Worcester Co., Worcester, Mass.
Ingels—Elbow Machines. Maplewood Machinery Co., Chicago, Ill.
In-Quik—Combustion Chambers. Insulation & Refractories Co., Williamson, N. Y.
INS—Brazing Torches. Lincoln Electric Co., Cleveland, O.
Insa-Late—Insulating Cement. Sauereisen Cements Co., Pittsburgh, Pa.
Instant-Glo—Combustion Chambers. Boston Machine Works Co., Lynn, Mass.
Insulag—Insulation and Insulating Cement. Quigley Co., Inc., New York, N. Y.
Insulbrix—Refractories. Quigley Co., Inc., New York, N. Y.
Insulfil—Insulation. Refractory & Insulation Corp., New York, N. Y.
Insul-Lyte—Combustion Chambers and

Refractories. Insulating Castable Corp., River Rouge, Mich.
Insulmat—Insulation. J. W. Mortell Co., Kankakee, Ill.
Interlox—Hose and Fittings. International Metal Hose Co., Detroit, Mich.
Inter-Matic—Time Switches, Electric Motors. International Register Co., Chicago, Ill.
International—Oil Tank Gauge. Applied Mechanics Co., Boston, Mass.
In-trulok—Copper Tube Fittings. Parker Appliance Co., Cleveland, O.
Inversaire—Furnaces. Berger Furnace Corp., Belle Vernon, Pa.
Ironhide—Paint. Pittsburgh Plate Glass Co., Pittsburgh, Pa.
Ironweld—Cast Iron Welding Flux. Sight Feed Generator Co., West Alexandria, Ohio.
Irho—Rust-Proofing. Wolfe-Kote Co., Sheboygan, Wis.
Island City—Registers. Rock Island Register Co., Rock Island, Ill.
Isomode—Vibration Pads. MB Mfg. Co., Inc., New Haven, Conn.
IVCO—Ventilators. Iona Ventilator Co., Inc., Philadelphia, Pa.

J

Janette—Blower Wheels and Housings. Jan-Air, Inc., Richmond, Ill.
Janirol—Gas Burners, Air Conditioning Units, Furnaces. Surface Combustion Corp., Toledo, Ohio.
J & C—Blower-Filter Units and Furnaces. Jackson & Church Co., Saginaw, Mich.
Ject-O-Valve—Ventilators. Swartwout Co., Cleveland, Ohio.
Jenn Air Exhausters—Blowers and Fans. Filkins, Inc., Edward, Chicago, Ill.
Jetglas—Furnaces. Payne Furnace Div., Affiliated Gas Equipment, Inc., Monrovia, Calif.
Jetglas—Gas Unit Heaters. Day & Night Div., Affiliated Gas Equipment, Inc., Monrovia, Calif.
Jetweld—Welding Rod. Lincoln Electric Co., Cleveland, O.
J. & H.—Electric Motors. Jack & Heintz, Inc., Cleveland, Ohio.
Jiffy—Roof Flashing. Simplex Mfg. Co., Fond du Lac, Wis.
JK—Bar Benders. James Knights Co., Sandwich, Ill.
J-M—Insulation, Roofing, Curtain Wall Panels. Johns-Manville, New York.
Jointite—Insulation. Mundet Cork Corp., North Bergen, N. J.
Jumbo—Oil Burners. Breeze Corps, Inc., Newark, N. J.
June-Aire—Furnaces. American Foundry & Furnace Co., Bloomington, Ill.
Junior—Water Heaters. SuperBO Mfg. Co., Los Angeles, Calif.
JusRite—Ducts, Dampers, Duct Connectors, Furnace Pipe and Fittings. Corbman Bros., Inc., Philadelphia, Pa.
JusRite L-Bo—Furnace Pipe and Fittings. Corbman Bros., Inc., Philadelphia, Pa.

K

Kant Krush—Roof Strainers. Grand Rapids Wire Products Co., Grand Rapids, Mich.
Kapco—Asphalt Board. Keystone Asphalt Products Co., Chicago, Ill.
Kasson—Motors. General Die & Stamp- ing Co., New York, N. Y.
Kastite—Castable Refractory. Chicago Fire Brick Co., Chicago, Ill.
Kathabar—Air Conditioning Units. De-

humidifiers. Surface Combustion Corp., Toledo, Ohio.
Kaukit—Caulking Compound. L. Sonneborn Sons, Inc., New York, N. Y.
K-B—Damper Clips and Tips, Regulator Sets. G. L. Kerentoff, Cincinnati, Ohio.
Keldur—Vibration Isolators. Hobsite Products Co., Harrison, N. J.
Ken—Solvents, Baffles, Fuel Oil Tank Gauges. Robert Barclay, Inc., Chicago.
Keystone—Flashings. Revere Copper and Brass, Inc., New York, N. Y.
Keystone—Water Heaters. Bastian-Morley Co., Inc., LaPorte, Ind.
Kimsul—Insulation. Kimbly-Clark Corp., Neenah, Wis.
King Gauge—Tank Gauge. Oil Equipment Mfg. Co., New Haven, Conn.
Kirkstone—Plates. Monarch Alloys, Ravenna, Ohio.
Kirkstone—Zinc Sheets. Morris P. Kirk & Son, Inc., Los Angeles, Calif.
Kirkson—Flux, Solder. Morris P. Kirk & Son, Los Angeles, Calif.
Kitchen-Aire—Kitchen Fans. Stewart Mfg. Co., Indianapolis, Ind.
Kitch-N-Ventor—Fans. Universal Blower Co., Birmingham, Mich.
Kleen-Aire—Furnaces. Steel City Furnace Co., Springdale, Pa.
Kleenflo—Filters. Air-Maze Corp., Cleveland, Ohio.
Kleenit—Oil Burner Tank Solvent, Soot Remover. Red Wing Oil Burner Co., Inc., Medford, Mass.
Kleenmaster—Furnace Vacuum Cleaners. Molloy Sales Corp., Chicago, Ill.
Klenk's—Snips. W. H. Compton Shear Co., Newark, N. J.
Klixon—Controls, Thermostats. Spencer Thermostat Div., Metals & Controls Corp., Attleboro, Mass.
Klondike—Welders. Ralph Fern, Scranton, Pa.
Klosd—Motors. Sterling Electric Motors, Inc., Los Angeles, Calif.
K-Louver—Sun Reflecting Louvers. Kawneer Co., Niles, Mich.
K&M—Insulation. Kearsbey & Mattison Co., Ambler, Pa.
Knock-Out—Arc Welders, Torches, Buffers, Grinders, Polishers and Sanders. K. O. Lee Co., Aberdeen, S. D.
Kno-Draft—High Velocity Air Diffusers. Connor Engineering Corp., Danbury, Conn.
KO—Hoists. Stephens-Adamson Mfg. Co., Aurora, Ill.
Kohler—Crimping Machine. Ingram Machinery Co., Picher, Okla.
Kokote—Wire. Continental Steel Corp., Kokomo, Ind.
Kolbkast—Combustion Chambers. Kolb Refractories Co., Philadelphia, Pa.
Kolbkast—Combustion Chambers. A. R. Webber Co., Inc., New Haven, Conn.
Kolstoker—Stokers. Anchor Stove & Range Co., New Albany, Ind.
Kompo-Kork—Vibration Isolating Pads. Korfund Co., Inc., Long Island City, N. Y.
Konik—Sheets and Wire. Continental Steel Corp., Kokomo, Ind.
Kooler-Aire—Air Conditioning Units. United States Air Conditioning Corp., Minneapolis, Minn.
Kooler-Kote—Sheet Metal Paint. Petroleum Chemicals, Inc., Fresno, Calif.
Koolmaster—Fans. Air Equipment Co., Inc., Chicago, Ill.
Kool-Pak—Air Conditioning Units. Midwest Automatic Control Co., Des Moines, Iowa.
Koolshade—Sun Reflecting Screens. Reflectal Corp., Subsidiary Borg-Warner Corp., Chicago, Ill.

Kool-Temp—Air Conditioning Units. Midwest Automatic Control Co., Des Moines, Iowa.
 Koppax—Paint. Koppers Co., Inc., Pittsburgh, Pa.
 Kopro-C.P.-15—Roof Cement. Philip Carey Mfg. Co., Cincinnati, Ohio.
 Korner King—Portable Power Saw. RCS Tool Sales Corp., Joliet, Ill.
 Kres-Kno Perco-Flash—Water Heaters. Kresno-Stamm Co., New York, N. Y.
 Krome-Kote—Metal Cleaners. Wolfe-Kote Co., Sheboygan, Wis.
 Krutze—Refractories. A. P. Green Fire Brick Co., Mexico, Mo.
 KRW—Press Brake. K. R. Wilson, Inc., Arcade, N. Y.
 Kurlicue—Aluminum Nails. Independent Nail & Packing Co., Bridgewater, Mass.
 Kwikflo Flux—Soldering Flux. London Chemical Co., Chicago, Ill.
 Kwik-Melter—Roofers' Kettles. Littleford Bros., Inc., Cincinnati, Ohio.
 Kwik-Tite—Copper Tube Fittings. Imperial Brass Mfg. Co., Chicago, Ill.
 Kwik-Way—Damper Regulators. Hart & Cooley Mfg. Co., Holland, Mich.
 KX-99—Refractories. A. P. Green Fire Brick Co., Mexico, Mo.

L

LA—Motors. Louis Allis Co., Milwaukee, Wis.
 La-Co—Soldering Flux. Lake Chemical Co., Chicago, Ill.
 Lacq—Lacquers. Glidden Company, Cleveland, Ohio.
 Lactile—Roofing Felt. Philip Carey Mfg. Co., Cincinnati, Ohio.
 Lamneck—Ducts and Duct Accessories, Water Heaters, Furnace Pipe and Fittings. Clayton & Lambert Mfg. Co., Louisville, Ky.
 Lancol—Stainless Steel Soldering Flux. F. H. Langenkamp Co., Indianapolis, Ind.
 Lapidensin—Waterproofing. American Fluoresit Co., Inc., Cincinnati, Ohio.
 Larco—Asbestos Paper Paste. Western Mineral Products Co., Minneapolis, Minn.
 Lastile—Roofing Felt. Philip Carey Mfg. Co., Cincinnati, Ohio.
 Latest—Skylight Lifts. Danzer Metal Works Co., Hagerstown, Md.
 L-Blow—Exhausters, Ventilators. Trade-Wind Motorfans, Inc., Los Angeles, Calif.
 Leader—Gas Burners. Berger Furnace Corp., Belle Vernon, Pa.
 Leader—Water Heaters. Day & Night Div., Affiliated Gas Equipment, Inc., Monrovia, Calif.
 Lead-Head—Nails. W. H. Maze Co., Peru, Ill.
 Lead-Seal—Roofing Nails. The Deniston Co., Chicago, Ill.
 Leadtex—Lead-Coated Sheets. Revere Copper & Brass Inc., New York, N. Y.
 Leafcoat—Protective Coated Sheets. Mid-America Steel Warehouses, Chicago, Ill.
 Leastoker—Stokers. H. Leslie Leas Co., Monona, Iowa.
 Lectrodryer—Dehumidifier. Pittsburgh Lectrodryer Corp., Pittsburgh, Pa.
 Leigh—Shutters, Awnings, Canopies, Ventilators. Air Control Products, Inc., Coopersville, Mich.
 Levelizer—Gas Controls. Mueller Climatrol, Milwaukee, Wis.
 Levelometer—Oil Tank Gauges. Liquidometer Corp., Long Island City, N. Y.

Liberty—Furnaces, Dowagiac Steel Furnace Co., Dowagiac, Mich.
 Liberty—Caulking Compound, Roof Cement, Paint, Waterproofing. Carter Paint Co., Liberty, Ind.
 Liberty—Ventilators. Penn Ventilator Co., Philadelphia, Pa.
 Lifeline "A"—Motors. Westinghouse Electric Corp., Pittsburgh, Pa.
 Lifetime—Roofing, Sheets, Conductor Pipe and Fittings, Tubing, Angles, Bars, Beams, Channels and Tees. Reynolds Metals Co., Louisville, Ky.
 Lift King—Warehouse Trucks. Yale & Towne Mfg. Co., Philadelphia, Pa.
 Light Duty—V-Belts. B. F. Goodrich Co., Akron, Ohio.
 Lightning—Hole Punches. Merchandising and Manufacturing Associates, Inc., Lancaster, Pa.
 Lincolnweld—Arc Welders. The Lincoln Electric Co., Cleveland, Ohio.
 Lincwelder—Arc Welders. Lincoln Electric Co., Cleveland, Ohio.
 Line-O-Flo—Diffusers, Ventilators. Barber-Colman Co., Rockford, Ill.
 Liquid Wrench—Rust Preventive Chemicals. Radiator Specialty Co., Charlotte, N. C.
 Lite-Cast—Combustion Chambers. Monogram Products Co., Philadelphia, Pa.
 Lithoform—Coating Chemical for Galvanized, Zinc or Cadmium surfaces. American Chemical Paint Co., Ambler, Pa.
 Little Blacksmith—Punches and Slitting Machines. J. F. Kidder Mfg. Co., Inc., Burlington, Vt.
 Little Bobby—Brakes. A. R. Harris, Hammond, Ind.
 Little Giant—Time Switches. Tork Clock Co., Inc., Mt. Vernon, N. Y.
 Little Gem—Gas Burner. Columbia Burner Co., Toledo, Ohio.
 Liv-Air—Furnaces. Livingston, Inc., Marshall, Mich.
 LJ-1—Brazing Torches. Lincoln Electric Co., Cleveland, O.
 Lloyd's—Soldering Flux. Johnson Mfg. Co., Inc., Mount Vernon, Iowa.
 L-M—Tubing. Lewin-Mathes Co., St. Louis, Mo.
 L & N—Thermometers. Leeds & Northrup Co., Philadelphia, Pa.
 Load King—Hand and Electric Hoists. Yale & Towne Mfg. Co., Philadelphia, Pa.
 Lo-Blast—Gas Burners. Mid-Continental Metal Products Co., Chicago, Ill.
 Lo-Boy—Stokers. Whiting Corp., Harvey, Ill.
 Lock-Joint—Duct and Duct Accessories. Inland Steel Products Co., Milwaukee, Wis.
 Lock-Seam—Blow Pipe Fittings. Chicago Metal Mfg. Co., Chicago, Ill.
 Lockaire—Building Insulation. Plastergon Wall Board Co., Buffalo, N. Y.
 Lo-Hed—Electric Hoists. American Engineering Co., Philadelphia, Pa.
 Lok-Joint—Building Insulation. Insulite Div., Minnesota & Ontario Paper Co., Minneapolis, Minn.
 Lone Star—Refractories. A. P. Green Fire Brick Co., Mexico, Mo.
 Longhorn—Water Heaters. Hotstream Heater Co., Cleveland, Ohio.
 Loop-the-Loop—Snow Guards. Danzer Metal Works Co., Hagerstown, Md.
 Lo-Pilot—Water Heaters. Allen Mfg. Co., Inc., Nashville, Tenn.
 Lo-Set—Stokers. Canton Stoker Corp., Canton, Ohio.
 Lovejoy-Ideal—V-belts. Lovejoy Flexible Coupling Co., Chicago, Ill.
 Lown—Slip Roll Forming Machines. San

Angelo Foundry & Machinery Co., San Angelo, Tex.
 Low Type—Roof Ventilators. Burt Mfg. Co., Akron, Ohio.
 L & R—Conductor Pipe. Lamb & Ritchie Co., Cambridge, Mass.
 L-U—Gravity Roof Ventilators. Hirschman-Pohle Co., Inc., LeRoy, N. Y.
 Lugo—Acid Brushes, Flux, Solder. Thos. F. Lukens Metal Co., Philadelphia, Pa.
 Lumaskin—Building Insulation. Angier Corp., Framingham, Mass.
 Lume-Tex—Aluminum Paint. Truscon Laboratories, Detroit, Mich.
 Luminous Flame—Gas Burners. Zink Co., John, Tulsa, Okla.
 Lusterlite—Insulation. Insulite Div., Minnesota & Ontario Paper Co., Minneapolis, Minn.
 Lustralumin—Aluminum Paint. Blue Ridge Talc Co., Inc., Henry, Va.
 Luxaire—Blower-Filter Units, Burners, Furnaces, Furnace Pipe and Fittings, Incinerators. The C. A. Olsen Mfg. Co., Elyria, Ohio.
 Lyfanite—Rust Preventive Chemicals. Neilson Chemical Co., Detroit, Mich.
 Lyonore—Sheets. Lyon-Conklin & Co., Inc., Baltimore, Md.
 Lyston—Soldering Flux. Farrelloy Co., Inc., Philadelphia, Pa.
 Lytestone—Soldering Flux. Tinning Baths. Farrelloy Co., Inc., Philadelphia, Pa.

M

Macheta—Fans, Fan Blades, Ventilators. Aerovent Fan Co., Piqua, Ohio.
 Magic Dial—Control Systems. Midwest Automatic Control Co., Des Moines, Iowa.
 Magic Dial—Thermostats. Perfex Corp., Milwaukee, Wis.
 Magic Heat—Furnaces. Marietta Metal Products Corp., Marietta, Pa.
 Magne-filter—Air Filters. Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
 Magnehelic—Draft Gauge. F. W. Dwyer Mfg. Co., Chicago, Ill.
 Mainliner—Fan Blades. Alan E. Burden Co., Los Angeles, Calif.
 Majestic—Flashing, Skylights, Ventilators. W. A. Fingles, Inc., Baltimore, Md.
 Mamco—Electric Motors. Master Appliance Mfg. Co., Racine, Wis.
 Marco—Propeller Fans. Marvin Mfg. Co., Los Angeles, Calif.
 Marietta—Enamels and Lacquers. American-Marietta Co., Chicago, Ill.
 Mark Time—Time Switches. M. H. Rhodes, Inc., Hartford, Conn.
 Mars—Furnaces. Pacific Gas Heating Co., San Francisco, Calif.
 Marsalis Chubby—Floor Furnace. American Metal Products Co., Fort Worth, Texas.
 Marvail—Air Conditioning Units. Muncie Gear Works, Inc., Muncie, Ind.
 Marvel—Water Heaters. Bastian-Morley Co., Inc., La Porte, Ind.
 Mary-Mac—Storage Water Heaters. McDaniel Mfg. Co., Inc., Dallas, Texas.
 Massachusetts—Air Conditioning Units, Blowers, Blower Wheels, Fans. Bishop & Babcock Mfg. Co., Cleveland, Ohio.
 Master—Circles, Hangers and Fittings. Royal-Apex Mfg. Co., Inc., Brooklyn, N. Y.
 Master—Evaporative Coolers. Essick Mfg. Co., Los Angeles, Calif.
 Master—Stokers. Muncie Gear Works, Inc., Muncie, Ind.

Master Blower—Thermostatic Hydraulic Control. White Mfg. Co., St. Paul, Minn.

Master Kraft—Coils, Oil Burners, Furnaces. Harvey-Whipple, Inc., Springfield, Mass.

Mastic Board—Insulation. Keystone Asphalt Products Co., Chicago, Ill.

Maxaw—Electric saws. John Oster Mfg. Co., Milwaukee, Wis.

Maxdrills—Electric Drills. John Oster Mfg. Co., Milwaukee, Wis.

Mayari R—Nickel-Chromium Sheets and Plates. Bethlehem Steel Co., Bethlehem, Pa.

Mayfair—Air Conditioning Units. Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, Ohio.

Mayfair—Stokers. Eddy Stoker Corp., Chicago, Ill.

McIlwaine—Oil Burners. Mason Machine Co., Inc., York, Pa.

McKee—Gas Burners. Eclipse Fuel Engineering Co., Rockford, Ill.

M. E.—Motors. Marathon Electric Mfg. Corp., Wausau, Wis.

Mecco—Doors and Shutters, Skylights, Ventilators. Moeschel-Edwards Co., Inc., Cincinnati, Ohio.

Meco—Gas Welding Rod, Torches. Modern Engineering Co., St. Louis, Mo.

Meco Jiffy—Soldering Torches. Modern Engineering Co., St. Louis, Mo.

Meletron—Controls. Barksdale Valves, Los Angeles, Calif.

Merion—Water Heaters. John Wood Co., Conshohocken, Pa.

Metalbestos—Chimney Caps, Pipe and Fittings. William Wallace Co., Belmont, Calif.

Metaleaf—Aluminum Paint. Pittsburgh Plate Glass Co., Pittsburgh, Pa.

Metallite—Paints. Glidden Co., Cleveland, Ohio.

Metal-Master—Snips and Shears. J. Wiss & Sons Co., Newark, N. J.

Metalmaster—Band Saws. DoALL Co., Des Plaines, Ill.

Metalprep—Rust Preventative Chemicals. Neilson Chemical Co., Detroit, Mich.

Metal Zipper—Arc Welders. Mid-States Welder Mfg. Co., Chicago, Ill.

Meteor—Hoists. Chisholm-Moore Hoist Div., Columbus McKinnon Chain Corp., Tonawanda, N. Y.

Met-L-Flex—Vibration Isolating Bases and Pads. Robinson Aviation, Inc., Teterboro, N. J.

MetroDeck—Steel Roofing. Goldsmith Metal Lath Co., Cincinnati, Ohio.

Metropac—Oil Burners and Gas Furnaces. Metromatic Mfg. Co., Everett, Mass.

Metropolitan—Baseboard Diffusers. Vectaire Mfg. Co., Melrose, Mass.

Mex-Ko—Refractories. A. P. Green Fire Brick Co., Mexico, Mo.

Meyco—Furnaces. Meyer Furnace Co., Peoria, Ill.

M.F.C.—Gas Floor Furnaces. Moncrief Furnace & Mfg. Co., Inc., Dallas, Texas.

MGO Combination—Gas-Oil Burners. Mettler Co., Inc., The, Los Angeles, Calif.

M-H—Controls. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.

Mica-kote—Roofing Felt. Philip Carey Mfg. Co., Cincinnati, Ohio.

Micro-Klean—Fuel Oil Filters. Cuno Engineering Corp., Meriden, Conn.

Microlite—Duct and Furnace Insulation. Glass Fibers Inc., Toledo, O.

Microlock—Bearings. Shafer Bearing

Div., Chain Belt Co., Downers Grove, Ill.

Micromax—Recorders. Leeds & Northrup Co., Philadelphia, Pa.

Micro-Mix—Oil Burners. Lennox Furnace Co., Marshalltown, Iowa.

Micro Motor—Motors. Redmond Distributors, Inc., Newark, N. J.

MicroRold—Stainless Sheets. Washington Steel Corp., Washington, Pa.

Microtherm—Thermostats. Barber-Colman Co., Rockford, Ill.

Micro-Weld—Welders. Micro Products Co., Chicago, Ill.

Midget—Brakes. A. R. Harris, Hammond, Ind.

Midget—Humidifier Valves. Maid-O'-Mist, Inc., Chicago, Ill.

Midget King—Hoist. Yale & Towne Mfg. Co., Philadelphia, Pa.

Mighty Midget—Furnaces. Dowagiac Steel Furnace Co., Dowagiac, Mich.

Mighty Midget—Drills. Stanley Elec. Tool Div., The Stanley Works, New Britain, Conn.

Milcor—Furnace Pipe, Roofing and Roofing Products. Inland Steel Products Co., Milwaukee, Wis.

Milwaukee—Presses and Dies. Doelger & Kirsten, Inc., Milwaukee, Wis.

Milwaukee Themolfo—Furnaces. Metzger Machine & Engineering Co., Milwaukee, Wis.

Mindicator—Thermometers. Dickson Co., Chicago, Ill.

Minicorder—Recorders. Dickson Co., Chicago, Ill.

Minit Kote—Metal Cleaner. Klem Chemicals, Inc., Detroit, Mich.

Mipatan—Electric Hammers. Gibson Industries, Muskegon, Mich.

Miracle Breeze—Evaporative Cooler Units. Arizona Maintenance Co., Tucson, Ariz.

Mirawal—Metal Sheets. Baltimore Porcelain Steel Corp., Baltimore, Md.

Missouri Flint—Fire Brick. Chicago Fire Brick Co., Chicago, Ill.

Mix-Mor—Combustion Heads. National Fuel Conservation Co., Inc., White Plains, N.Y.

Mizzou—Refractories. A. P. Green Fire Brick Co., Mexico, Mo.

M&M—Valves. McDonnell & Miller, Inc., Chicago, Ill.

Modern—Incinerators. Modern Controls Corp., Centerline, Mich.

ModernAire—Fans, Evaporative Air Conditioning Units. National Gas Equipment Co., Inc., Denison, Texas.

Modu-aire—Air Conditioning Units. United States Air Conditioning Corp., Minneapolis, Minn.

Moduflame—Floor Furnaces. Mahl Mfg. Co., Huntington Park, Calif.

Moduflow—Control Systems. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.

Modutrol—Duct Damper Motors. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.

Modu-Wave—Welders. Sciaky Bros., Inc., Chicago, Ill.

Mogul—Rust Preventive Chemicals, Soot Removers, Tank Solvents. North American Fibre Products Co., Cleveland, O.

Moisture Magnet—Dehumidifiers. Remington Air Cond. Div., Remington Corp., Auburn, N. Y.

Moldit—Refractories. Refractory & Insulation Corp., New York, N. Y.

Monarch—Furnaces. Forest City Foundries Co., Cleveland, Ohio.

Moncrief—Blower-Filter Units, Furnaces, Burners, Duct, Grilles, Unit Heaters, Pipe and Fittings, Air Conditioning

Units, Incinerators. Henry Furnace Co., Medina, Ohio.

Monel—Sheets, Plate and Tubing. Electrodes. International Nickel Co., New York, N. Y.

Monend—Welding Rod. Arcos Corp., Philadelphia, Pa.

Monitor—Furnaces. Marshall Furnace Co., Marshall, Mich.

Monmouth—Humidifiers. Cleveland Humidifier Co., Cleveland, Ohio.

Mono-Block—Furnace Insulation. Baldwin Hill Co., Trenton, N. J.

Monocast—Refractories. Ramtite Co., Chicago, Ill.

Monogram—Furnaces. Quincy Stove Mfg. Co., Quincy, Ill.

Monogram—Combustion Chambers. Grant Wilson, Inc., Chicago, Ill.

Monoline—Refractories. Quigley Co., Inc., New York, N.Y.

Monoport—Gas Burners. Modern Controls Corp., Centerline, Mich.

Monovent—Roof Ventilators. Burt Mfg. Co., Akron, Ohio.

Morflex—Flexible Couplings. Morse Chain Co., Ithaca, N. Y.

Morlex—Rust Preventives. Carbide and Carbon Chemicals Co., Div. Union Carbide and Carbon Corp., New York, N. Y.

Morse Cyclone—Blow Pipe Collectors. Goergen-Mackwirth Co., Inc., Buffalo, N. Y.

Mor-Sun—Oil Burners, Furnaces, Air Conditioning Units. Morrison Steel Products, Inc., Buffalo, N. Y.

Mortex—Metal Protective Coatings. J. W. Mortell Co., Kankakee, Ill.

Mortite—Caulking and Glazing Compounds, Roofing Paint. J. W. Mortell Co., Kankakee, Ill.

Motorized Draft-O-Stat—Controls. Hotstream Heater Co., Cleveland, Ohio.

Motorstoker—Stokers and Furnaces. Hershey Machine & Foundry Co., Manheim, Pa.

Mototurb—Ventilators. Uno Ventilator Co., Malden, Mass.

Moyno—Pumps. Robbins & Myers, Inc., Springfield, Ohio.

M-Pel-Air—Fans, Fan Blades. Brookside Products Co., Inc., McCordsville, Ind.

M-R—Wire Glass. H. H. Robertson Co., Pittsburgh, Pa.

M & T—Arc Welders. Metal & Thermit Corp., New York, N. Y.

Muckle-Vents—Roof Ventilators. Muckle Mfg. Co., Owatonna, Minn.

Mule-Hide—Cement, Caulking Compounds, Insulation, Paint and Roofing. Lehon Co., Bellwood, Ill.

Multiblade—Welding Fume Exhausters. General Blower Co., Morton Grove, Ill.

Multiclone—Blow Pipe Collectors. Western Precipitation Corp., Los Angeles, Calif.

Multi-duty—Pulleys. Gates Rubber Co., Denver, Colo.

Multi-Duty—Filters. American Air Filter Co., Inc., Louisville, Ky.

Multi-Flame—Gas Burners. American Gas Burner, Inc., Indianapolis, Ind.

Multi-Max—Punch Presses. Diamond Machine Tool Co., Pico, Calif.

Multi-Notcher—Notching Machine. Fallington Mfg. Co., Fallington, Pa.

Multitherm—Air Conditioning Units. Clarage Fan Co., Kalamazoo, Mich.

Multi-V—Belts. B. F. Goodrich Co., Akron, Ohio.

Multivane—Blowers. Westinghouse Electric Corp., Startevant Div., Hyde Park, Boston, Mass.

Multi-Vent—Air Diffuser. Pyle-National Co., Multi-Vent Div., Chicago, Ill.

Murex—Welding Rod. Metal & Thermit Corp., New York, N.Y.

M/W—Filters. American Air Filter Co., Inc., Louisville, Ky.
Myka-Disk—Baffles. Insulation & Refractories Co., Williamson, N. Y.

N

Nairoil—Oil Burners, Combustion Chambers. National Airoil Burner Co., Philadelphia, Pa.
Nalco—Flux. National Lead Co., New York, N. Y.
Narrow Wall—Wall Furnaces. Holly Mfg. Co., Pasadena, Calif.
National—Blower-Filter Units, Furnaces, Direct Fired Air Heaters. MaGirl Foundry & Furnace Co., Bloomington, Ill.
National—Furnaces. Excelsior Stove & Mfg. Co., Quincy, Ill.
National—Horizontal Furnaces. Stainless & Steel Products Co., St. Paul, Minn.
National—Water Heaters. Mustee Heater Co., Cleveland, Ohio.
National Champion—Furnaces. National Heater Co., St. Paul, Minn.
Natur-Temp—Building Insulation. Barnhardt Mfg. Co., Charlotte, N. C.
Naturzone—Building and Duct Insulation. Wilson & Co., Inc., Chicago, Ill.
NCG—Soldering and Welding Flux, Welding Rods. National Cylinder Gas Co., Chicago, Ill.
Nebelastic—Roof Cement. Nebel Mfg. Co., Cleveland, Ohio.
Nebel-Kote—Paint. Nebel Mfg. Co., Cleveland, Ohio.
Nelson—Air Conditioning Units, Baseboard Diffusers, Furnaces, Stokers. Heating Assurance, Inc., Spokane, Wash.
Nelweld—Welders. Nelson Stud Welding Div., Gregory Industries, Inc., Lorain, Ohio.
Nev-A-Rust—Paints. Glidden Co., Cleveland, Ohio.
Never-Stain—Aluminum Nails, Roof Flashings, Aluminum Wire, Ridge Roll, Roofing. Nichols Wire & Aluminum Co., Davenport, Iowa.
New Braze—Flux. Sherman & Co., New York, N. Y.
New Departure—Oil Burners. Breeze Corps., Inc., Newark, N. J.
New Detroit—Draft Gauges. Detroit Air Conditioning Service Co., Inc., Nashville, Mich.
Niagara—Furnaces, Blowers, Oil Burners, Air Conditioning Units. Forest City Foundries Co., Cleveland, Ohio.
Nibco—Copper Tube Fittings. Northern Indiana Brass Co., Elkhart, Ind.
Nib-Shear—Power Nibber-Shear. H.A. Mfg. Co., York, Pa.
Nickelend—Welding Rod. Arcos Corp., Philadelphia, Pa.
Nickeloid—Sheets. American Nickeloid Co., Peru, Ill.
Nicuend—Welding Rod. Arcos Corp., Philadelphia, Pa.
Nifer—Metal Sheets. General Plate Div., Metals & Controls, Attleboro, Mass.
Niteair—Night Air Cooling Fans. Lau Blower Co., Dayton, Ohio.
Nitecool—Fans. Air Equipment Co., Inc., Chicago, Ill.
Nitrox—Rust Preventive Chemicals. Solvay Process Div., Allied Chemical & Dye Corp., New York, N.Y.
Noah's Pitch—Roof Cement, Waterproofing. Philip Carey Mfg. Co., Cincinnati, Ohio.
NoDrip—Insulation. J. W. Mortell Co., Kankakee, Ill.
No-Dust—Grinders. Hammond Machinery Builders, Inc., Kalamazoo, Mich.

Non-Clogging—Spray Nozzles. Link Belt Co., Chicago, Ill.
Non-Con-Dux—Cement, Paper, Paste. Grant Wilson, Inc., Chicago, Ill.
Non-Syphoning—Steel Roofing. Inland Steel Products Co., Milwaukee, Wis.
No-Ox-Id—Rust Preventive Chemicals. Dearborn Chemical Co., Chicago, Ill.
Norblo—Blowers. Northern Blower Co., Cleveland, Ohio.
Norco—Furnace Repair Parts. Northwestern Stove Repair Co., Chicago, Ill.
Norwalker—Duct and Duct Fittings, Furnaces. Norwalk Air Conditioning Corp., South Norwalk, Conn.
Norwesco—Ducts, Duct Accessories, Flashings, Gutters, Conductor and Furnace Pipe and Fittings, Ridge Rolls, Roof Trim. Northwest Metal Products, Inc., Seattle, Wash.
Nor'wester—Blowers. Grand Rapids Die & Tool Co., Grand Rapids, Mich.
No-Spat—Welding Flux. Midland Paint & Varnish Co., Cleveland, Ohio.
No-Streak—Registers. Rock Island Register Co., Rock Island, Ill.
No Tar In—Roofing Paint. Rutland Fire Clay Co., Rutland, Vt.
Novoid—Bases, Insulation. National Cork Co., Englewood, N. J.
Nox Soot—Soot Remover. Saginaw Salt Products Co., Saginaw, Mich.
Nu-Air—Fan Blades, Fans, Louvers, Ventilators. Meier Electric & Machine Co., Indianapolis, Ind.
Nu-Air—Odor Adsorbers. Charles E. Manning Co., Pittsburgh, Pa.
Nu-Alpina—Gravity Roof Ventilators. Inland Steel Products Co., Milwaukee, Wis.
Nu Braze—Flux. American Silver Co., Inc., Flushing, N.Y.
Nudeck—Roof Cement. United Gilsonite Laboratories, Scranton, Pa.
Nu Galv—Metal Protecting Paint. Southern States Iron Roofing Co., Savannah, Ga.
Nu-Notch—Ventilators. Knowles Mushroom Ventilator Co., Upper Montclair, N. J.
Nupla—Mallets. New Plastic Corp., Hollywood, Calif.
Nutipe—Gas Conversion Burners. Columbia Burner Co., Toledo, Ohio.
Nu-Trojan—Combustion Chambers. A. R. Webber Co., Inc., New Haven, Conn.
Nuweld—Skylight Wire Glass. Blue Ridge Glass Corp., Kingsport, Tenn.
Nu-Wood—Rigid Insulation. Wood Conversion Co., St. Paul, Minn.

O

Oasis—Dehumidifiers. Ebco Mfg. Co., Columbus, Ohio.
Octagon Power—Roof Ventilators. Octagon Ventilator Co., Chicago, Ill.
Octogon Siphon—Roof Ventilators. Octagon Ventilator Co., Chicago, Ill.
Octopus—Exhausters. Chelsea Fan & Blower Co., Inc., Plainfield, N. J.
OEM—Combustion Chambers, Baffles. Oil Equipment Mfg. Corp., New Haven, Conn.
Ohio Triple Twisted—Wire Hangers. Ohio Wire Products Co., Dover, Ohio.
Ohioan—Water Heaters. Hotstream Heater Co., Cleveland, O.
Oil-A-Fire—Burners, Furnaces. Automatic Firing Corp., St. Louis, Mo.
Oil-Aire-Flo—Oil Furnaces. Lennox Furnace Co., Marshalltown, Iowa.
Oil Economy—Furnaces. International Heater Co., Utica, N. Y.
Oil-Flo—Furnaces. Coal-O-Matic Co., Trucksville, Pa.
Oilifier—Fuel Oil Pump. A-P Controls Corp., Milwaukee, Wis.

Oil-n-Aire—Oil Burners. Breeze Corps., Inc., Newark, N. J.
Oil-O-Matic—Oil Burners, Furnaces. Williams Div., Eureka-Williams Co., Div. of Henney Motor Co., Inc., Bloomington, Ill.
Oil-Treet—Fuel Oil Solvents. Saginaw Salt Products Co., Saginaw, Mich.
OK—Grinders. Hammond Machinery Builders, Inc., Kalamazoo, Mich.
Ol'Faithful—Humidifiers. Maid-O'-Mist, Inc., Chicago, Ill.
One Minute—Furnaces. Worsham Co., Inc., St. Louis, Mo.
Original Dowagiac—Furnaces. Dowagiac Steel Furnace Co., Dowagiac, Mich.
Orlando—Furnaces. Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
Out-O-Wall—Registers. Rock Island Register Co., Rock Island, Ill.
Ovaltube—Gas Burners. Beck Engineering Combustion Company, St. Louis, Mo.
Oxweld—Welding Apparatus. Linde Air Products Co., New York, N. Y.
Ozark—Refractories. A. P. Green Fire Brick Co., Mexico, Mo.
Oxite—Insulation. American Hair & Felt Co., Chicago, Ill.

P

Pabco Coolite—Sheet Metal Paint. Pabco Products Inc., San Francisco, Calif.
Pacific—Furnaces. W. W. Rosebaugh Co., Salem, Ore.
Pacific—Water Heaters. United States Radiator Corp., Detroit, Mich.
Packaged Weather—Store Coolers. General Electric Co., Bloomfield, N. J.
Paintbond—Bonderized Sheets. United States Steel Corp., Pittsburgh, Pa.
Paintgrip—Metal Sheets. Armco Steel Corp., Middletown, Ohio.
Pak-Ice—Machines. Vilter Mfg. Co., Milwaukee, Wis.
Palco Wool—Saferized—Insulation. Pacific Lumber Co., San Francisco, Calif.
Palmaire—Portable Humidifiers, Evaporative Air Conditioning Units. Palmer Mfg. Co., Phoenix, Ariz.
Palm Beach—Controls. National Modulation Co., St. Paul, Minn.
Panelaire—Wall Furnaces. Payne Furnace Div., Affiliated Gas Equipment Inc., Monrovia, Calif.
Panelbloc—Direct Fired Heaters. Prater Daniel Corp., South Norwalk, Conn.
Panelray—Furnaces, Unit Heaters, Water Heaters. Day & Night Div., Affiliated Gas Equipment, Inc., Monrovia, Calif.
Papico—Water Heaters. Continental Water Heater Co., Los Angeles, Calif.
Paragon Booster—Water Heaters. Continental Water Heater Co., Los Angeles, Calif.
Paramount—Evaporative Air Conditioners. Essick Mfg. Co., Los Angeles, Calif.
Paramount—Flashing. Flemm Lead Co., Inc., Long Island City, N. Y.
Paramount—Hollow Metal Windows. Willis Steel Corp., Galesburg, Ill.
Paramount-Master—Evaporative Coolers. Essick Mfg. Co., Los Angeles, Calif.
Parco—Skylight Lifts. Park City Comics Works, Inc., Bridgeport, Conn.
Parco—Metal Cleaners and Rust Preventive Compounds. Parker Rust-Proof Co., Detroit, Mich.
Parr LPG—Water Heaters. EverHot Heater Co., Detroit, Mich.
Patrol—Gas Burner Pilots. Cleveland Heater Co., Cleveland, Ohio.

Payneheat—Furnaces. Payne Furnace Div. Affiliated Gas Equipment, Inc., Monrovia, Calif.
PBA Unit—Utility Room Furnace. Dowagiac Steel Furnace Co., Dowagiac, Mich.
Peerless—Stokers. Eddy Stoker Corp., Chicago, Ill.
Peerless—Hoists. The Harrington Co., Plymouth Meeting, Pa.
Peerless Packet—Hoists. The Harrington Co., Plymouth Meeting, Pa.
Pemco—Stainless Firebox Fittings, Baffles. Oil Equipment Mfg. Co., New Haven, Conn.
Penetrol—Paint. Flood Co., Cleveland, Ohio.
Penfield—Water Heater. John Wood Co., Conshohocken, Pa.
Penflex—Flexible Metal Hose and Fittings. Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.
Penglass—Roof Ventilators. Pennsylvania Wire Glass Co., Philadelphia, Pa.
Penn-Aire—Furnaces. Union Mfg. Co., Inc., Boyertown, Pa.
Penna—Furnaces. Pennsylvania Furnace & Iron Co., Warren, Pa.
Penn Drake—Rust Preventive Chemicals. Fuel Oil Solvents. Pennsylvania Refining Co., Ohio Div., Cleveland, O.
PennSalt—Rust Preventive, Chemicals and Cleaners. Pennsylvania Salt Mfg. Co., Philadelphia, Pa.
Pentco—Punches & Snips. Penn Tool Co., Philadelphia, Pa.
Perco-Flash—Water Heaters. Kresno-Stamm Mfg. Co., Palisades Park, N. J.
Percoproof—Waterproofing. Philip Carey Mfg. Co., Cincinnati, Ohio.
Perfectaire—Air Conditioning Units, Dehumidifiers, Furnaces, Louvers and Shutters, Oil Heaters, Heat Recoverers. Air Conditioning Engineering Co., Cambridge, Mass.
Perfection—Eaves Trough Fittings and Accessories. Iwan Bros., South Bend, Ind.
Perfecto—Combustion Chambers. A. P. Green Fire Brick Co., Mexico, Mo.
Perfusaire—Diffusers, Registers. Auer Register Co., Cleveland, O.
Perim-A-Base—Small Pipe Heating Systems. Berger Furnace Corp., Belle Vernon, Pa.
Perim I Base—Baseboard Diffusers. Thermo-Products, Inc., North Judson, Ind.
Perima-flo—Metal Duct and Fittings, Furnace Pipe and Fittings. Lennox Furnace Co., Marshalltown, Ia.
Permadine—Coating Chemical for Steel or Iron Surfaces. American Chemical Paint Co., Ambler, Pa.
Perma-Fan—Refrigerating Condensers. Drayer-Hanson, Inc., Los Angeles, Calif.
Perm-Align—Electric Drills. John Oster Mfg. Co., Milwaukee, Wis.
Permaglas—Water Heaters. A. O. Smith Corp., Permaglas Div., Kankakee, Ill.
Perma-Ply—Roofing Felt. Owens-Corning Fiberglass Corp., Toledo, O.
Pernoco—Evaporative Coolers. Pernot Corp., Norwalk, Calif.
Pet—Electric Buffers, Grinders, Polishers and Sanders, Electric Drills. Portable Electric Tools, Inc., Chicago, Ill.
PeteCo—Baffles and Combustion Chambers. B. A. Peterson Co., Dowagiac, Mich.
Pexto—Metal Workers' Machines and Tools, Roofers Tools. Peck, Stow & Wilcox Co., Southington, Conn.
P & H—Welding Rods, Electrodes,

Hoists, Arc Welders. Harnischfeger Corp., Milwaukee, Wis.
Phosco—Welding Rod. United Wire & Supply Corp., Providence, R. I.
Phosteam—Rust Preventive Chemicals. Neilson Chemical Co., Detroit, Mich.
Pickle Polish—Stainless Cleaner. American Chemical Paint Co., Ambler, Pa.
Pilotstat—Gas Pilot Controls. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Pioneer—Controls. Crown Controls Co., Inc., New Bremen, Ohio.
Pittsburgh—Suspended Furnaces, Gas Fired Unit Heaters. Automatic Gas Equipment Co., Pittsburgh, Pa.
P-K—Nails, Screws. Parker-Kalon Div., General American Transportation Corp., New York, N. Y.
Planeweld—Welding Rod. Lincoln Electric Co., Cleveland, Ohio.
Plasti-Calk—Caulking Compounds. Chamberlin Co. of America, Detroit, Mich.
Plastic Elastigum—Cement. Barrett Div., Allied Chemical & Dye Corp., New York, N. Y.
Plastic Insulcrete—Refractories. Quigley Co., Inc., New York, N. Y.
Plastic PB—Cement Barret Div., Allied Chemical & Dye Corp., New York, N. Y.
PlastiKon—Rubber Putty. B. F. Goodrich Co., Akron, Ohio.
Plastiktrim—Plastic Mouldings, Trim. R. F. Werner Co., New York, N. Y.
Plasti-Static—Air Filters. Master Products Co., Inc., Chicago, Ill.
Plastite—Roof Cement. Coopers Creek Chemical Corp., West Conshohocken, Pa.
Plastoid—Caulking Compounds, Furnace Cement. Plastic Products Co., Detroit, Mich.
Playford—Stokers. Rosedale Foundry & Machine Co., Pittsburgh, Pa.
Plexiform—Blowers. Bayley Blower Co., Milwaukee, Wis.
Plotron—Cleanable Air Filters. Good-year Tire & Rubber Co., Inc., Akron, O.
Porto-Shear—Electric Shears. Black & Decker Mfg. Co., Towson, Md.
Portovent—Flexible Hose. Flexaust Co., New York, N. Y.
Poweraire—Furnaces. Jackson & Church Co., Saginaw, Mich.
Powerbilt—Exhausters. Power Engineering Co., Chicago, Ill.
Power-Flame—Gas Burners. Siemon Mfg. Co., Grandview, Kansas City, Mo.
Power-Flo—Blowers, Blower Wheels, Exhausters. Brookside Products Co., Inc., McCordsville, Ind.
Power-Flow—De Bothezat Fans Div., American Machine & Metals, Inc., East Moline, Ill.
Powergas—Gas Burners. Jackson & Church Co., Saginaw, Mich.
Powerhouse—Insulating Cement. Baldwin-Hill Co., Trenton, N. J.
Power-Line—Staplers. Powers Wire Products Co., Monroe, Mich.
Powerroll—Oil Burners. Jackson & Church Co., Saginaw, Mich.
Power-Pac—Fans. Uno Ventilator Co., Malden, Mass.
Power-Poise—Electric Motors. Brown-Brockmeyer Co., Inc., Dayton, O.
PowerRated—Commercial-Industrial Furnaces. Jackson & Church Co., Saginaw, Mich.
Powerstat—Gas Pressure Regulating Valves. Mercoid Corp., Chicago, Ill.
Power Vane—Pneumatic Grinders. Chicago Pneumatic Tool Co., New York, N. Y.

Powrmatic—Oil Burners. Kresno-Stamm Mfg. Co., Palisades Park, N. J.
Prairie Schooner—Portable Furnaces. Lennox Furnace Co., Marshalltown, Ia.
Precipitron—Electrostatic Air Filter. Westinghouse Elec. Corp., Air Conditioning Div., Staunton, Va.
Premier—Welding Rod. American Steel & Wire Div., U. S. Steel Corp., Cleveland, Ohio.
Premier Automatik—Stoker-Fired Air Conditioning Furnaces. Premier Furnace Co., Dowagiac, Mich.
Premier DeLux—Furnaces. Premier Furnace Co., Dowagiac, Mich.
Premier Master—Furnaces. Premier Furnace Co., Dowagiac, Mich.
Pre-Notch—Ducts, Furnace Pipe and Fittings. Gray Metal Producers, Inc., Rochester, N. Y.
Prepnocote—Rust Preventive Chemicals. Neilson Chemical Co., Detroit, Mich.
Preprite—Rust Preventive Chemicals. Neilson Chemical Co., Detroit, Mich.
Prepwash—Rust Preventive Chemicals. Neilson Chemical Co., Detroit, Mich.
Pressico—Furnace and Roof Cement, Compounds, Paint. Presstite Engineering Co., St. Louis, Mo.
Presteel—Metal Stampings. Worcester Pressed Steel Co., Worcester, Mass.
Presto—Soldering Torch. American Products Corp., Chicago, Ill.
Prest-O-Lite—Soldering Torches, Welding Equipment. Linde Air Products Co., New York, N. Y.
Prest-O-Weld—Oxy-Acetylene Welding Equipment, Torches. Linde Air Products Co., New York, N. Y.
Prime-Kote—Roofing Paint. Philip Carey Mfg. Co., Cincinnati, Ohio.
Princo—Hygrometers, Psychrometers, Electric Relays, Thermometers and Thermostats. Precision Thermometer and Instrument Co., Philadelphia, Pa.
Propellair—Fans and Ventilators. Robbins & Myers, Inc., Springfield, Ohio.
Prop-R-Temp—Air Conditioning Units. Typhoon Air Cond. Co., Inc., Brooklyn, N. Y.
Protectal—Sheet Metal Paint. Coopers Creek Chemical Corp., West Conshohocken, Pa.
Protecto-glo—Controls. Minneapolis-Honeywell Reg. Co., Minneapolis, Minn.
Protectoline—Rust Preventive Chemicals. Magnus Chemical Co., Garwood, N. J.
Protector—Snow Guards. David Lewow, New York, N. Y.
Protector—Germicidal Lamps. Merchandising and Manufacturing Associates, Inc., Lancaster, Pa.
Protectorelay—Oil Burner Relays. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Puffglass—Air Filters. Drico Industrial Corp., New York, N. Y.
Pul-Air—Ventilators. Penn Ventilator Co., Philadelphia, Pa.
Pul-Lift—Hoist. Yale & Towne Mfg. Co., Philadelphia, Pa.
Pullman—Ventilators. Penn Ventilator Co., Philadelphia, Pa.
Pullmax—Sheet Metal Working Machines. American Pullmax Co., Inc., Chicago, Ill.
Punchawl—Tools. Hub Specialty Co., Reading, Mass.
Punch Pal—Punches. Wilder Mfg. Co., Inc., Carmel, Calif.
Pur Air—Odor Absorbers. Barnebey-Cheney Co., Columbus, O.
Pure Dure—Water Heaters. Continental Water Heater Co., Los Angeles, Calif.

Purox—Oxy-Acetylene Welding Equipment and Torches. Linde Air Products Co., New York, N. Y.
Pyralux—Enamels and Lacquers. E. I. du Pont de Nemours & Co., Wilmington, Del.
Pyrotron—Temperature Recorders. Bailey Meter Co., Cleveland, Ohio.

Q

Q-Chrome—Insulating Cement. Quigley Co., Inc., New York, N. Y.
Q-Chromastic—Insulating Cement. Quigley Co., Inc., New York, N. Y.
Q-T Ductliner—Building and Duct Insulation. Celotex Corp., Chicago, Ill.
Quad—Furnace Blowers. Trade-Wind Motorfans, Inc., Los Angeles, Calif.
Quaker City—Gutters and Gutter Accessories. Snow Guards, Conductor Pipe and Fittings, Ridge Roll. Berger Bros. Co., Philadelphia, Pa.
Quantrol—Duct Turning Vanes. Register & Grille Mfg. Co., Inc., Brooklyn, N. Y.
Quick Action—Clamps. Roesch Tool Products, Los Angeles, Calif.
Quick-As-Wink—Solenoid Valves, Metal Hose. Hunt & Son, Inc., C. B., Salem, Ohio
Quick Heat—Furnaces. American Stove Co., St. Louis, Mo.
Quick Heat—Blowers, Furnaces. Tjernlund Mfg. Co., St. Paul, Minn.
Quick Heater—Oil Burners, Furnaces, Stokers. Quick Furnace & Supply Co., Des Moines, Iowa.
Quick-Set—Dividers and Notchers. Reiner & Campbell Co., Inc., Elizabeth, N. J.
Quick-Set—Waterproofing. American Fluoresit Co., Inc., Cincinnati, Ohio.
Quickwork—Shears and Sheet Metal Machines. Whiting Corp., Harvey, Ill.
Quiet Flame—Oil Burners. Volcano Burner Corp., New York, N. Y.
Quiet Kool—Air Conditioning Units. Quiet-Heat Mfg. Corp., Subsidiary of Emerson Radio & Phonograph Corp., Newark, N. J.
Quiet Zone—Blowers. Palmer Mfg. Co., Phoenix, Ariz.
Quilt—Insulation. Samuel Cabot, Inc., Boston, Mass.

R

Racine—Stokers. Nelson Bros. & Strom Co., Racine, Wis.
Radiaire Base-Heat—Baseboard Diffusers. York-Shipley, Inc., York, Pa.
RadianTile—Ducts and Fittings. Cannelton Sewer Pipe Co., Cannelton, Ind.
Radiaire—Baseboard Diffusers. York-Shipley, Inc., York, Pa.
Radiust Master—Templates. Rapidesign, Inc., Glendale, Calif.
Radolite—Insulating Cement and Refractories. Pyrolite Products Co., Cleveland, Ohio.
Rail Huger—Hand Hoists. Yale & Towne Mfg. Co., Philadelphia, Pa.
Ramco—Chimney Caps and Tops, Ventilators. Royal-Apex Mfg. Co., Inc., Brooklyn, N. Y.
Ramfeed—Stokers. Canton Stoker Corp., Canton, Ohio.
Ranarex—CO₂ Analyzers. Permutit Co., New York, N. Y.
Ranchief—Furnaces. Conco Engineering Works, Mendota, Ill.
Range-Ventor—Fans. Universal Blower Co., Birmingham, Mich.

Rawl-Anchors—Bolts. Rawlplug Co., Inc., New York, N. Y.
Rawl-Drive—Expansion Bolts. Rawlplug Co., Inc., New York, N. Y.
Rawl-Tapers—Expansion Bolts. Rawlplug Co., Inc., New York, N. Y.
Rawl-Toggle Bolts—Bolts. Rawlplug Co., Inc., New York, N. Y.
Raymaster—Refrigerant Leak Detectors. Gates & Co., Inc., George W., Franklin Sq., L. I., N.Y.
Reco—Fans, Motors, Buffers, Relays and Switches. Reynolds Electric Co., River Grove, Ill.
Recold—Coils, Condensers, Cooling Towers. Refrigeration Engineering, Inc., Los Angeles, Calif.
Recoy—Air Conditioning Units, Cooling and Heating Coils, Refrigerating Condensers. Refrigeration Economics Co., Inc., Canton, Ohio.
Red Cap—Spinner Ventilator. Warner Ventilator Co., LaGrange, Ind.
Red Crown—Domestic Water Heaters. Hynes & Cox Electric Corp., Watervliet, N. Y.
Red Devil—Furnace Cement. Pecora Paint Co., Philadelphia, Pa.
Reddy-On—Furnace Door Closer. Leisur-Maid Mfg. Corp., Grand Rapids 3, Mich.
Redi-Flo—Registers. Air Conditioning Products Co., Detroit, Mich.
Redi-Paint—Sheet Metal Paint. Turco Products, Inc., Los Angeles, Calif.
Redi-Set—Sheet Metal Workers' Tools. Whitney Metal Tool Co., Rockford, Ill.
Red Metal—Roof Paint. Rutland Fire Clay Co., Rutland, Vt.
Red Metallic—Roofing Paint. Clinton Metallic Paint Co., Clinton, N. Y.
Red-Reading-Mercury—Hygrometers, Psychrometers and Thermometers. The Palmer Thermometers, Inc., Cincinnati, Ohio.
Red Seal—Sheets. Benjamin Wolff and Co., Chicago, Ill.
Red Streak—Shear Blades. Simonds Saw & Steel Co., Fitchburg, Mass.
Red Top—Insulation. United States Gypsum Co., Chicago, Ill.
Red Top—Thermostats. H-B Instrument Co., Philadelphia, Pa.
Red X—Cleaners and Polishers. Turco Products, Inc., Los Angeles, Calif.
Regal—Roofing Cement, Roofing Felt. Johns-Manville, New York, N.Y.
Rego—Brazing Torches. National Cylinder Gas Co., Chicago, Ill.
Rego—Flux. Bastian-Blessing Co., Chicago, Ill.
Reillaloy—Furnace Repair Parts. Pittsburgh Furnace Parts Co., Pittsburgh, Pa.
Rely-on—Caulking Compounds. Armstrong Co., Chicago, Ill.
Renu-glas—Air Filters. American Air Filter Co., Inc., Louisville, Ky.
Repro—Furnaces. Republic Products Co., Philadelphia, Pa.
Republic—Induced Draft Blowers, Furnaces, Conversion Gas Burners, Incinerators, & Heat Recoverers. Autogas Co., Bellwood, Ill.
Republic-Taylor—Terne Roofing Plates. Republic Steel Corp., Cleveland, Ohio.
Reslscote—Paint. Reilly Tar & Chemical Corp., Indianapolis, Ind.
Revolving—Ventilator. Accurate Sheet Metal & Mfg. Works, Chicago, Ill.
Revolving—Roof Ventilators. Burt Mfg. Co., Akron, Ohio
Rex—Bearings, Fans, Fan Blades, Blower-Filter Units, Blowers, Blower

Wheels. Air Controls Inc., Cleveland, Ohio.
Rex—Bearings and Nozzles. Chain Belt Co., Milwaukee, Wis.
Rex—Controls, Draft Diverters, Water Heaters. Cleveland Heater Co., Cleveland, Ohio.
Rex—Roof Flashing. Simplex Mfg. Co., Fond du Lac, Wis.
Rex-Airate—Fans, Blowers, Ventilators. Air Controls, Inc., Cleveland, Ohio.
Rex-Air-Pak—Blower Units. Air Controls, Inc., Cleveland, Ohio.
Rexarc—Welding Rods. Sight Feed Generator Co., West Alexandria, Ohio.
Rexco—Refractories. Rex-Roto Corp., Detroit, Mich.
Rex-Flex—Flexible Duct Connectors, Flexible Metal Hose and Fittings. Flexonics Corp., Maywood, Ill.
Rexide—Metal Protecting Paint. A. C. Horn Co., Inc., Long Island City, N. Y.
Rex Junior—Welders. Rex Welder & Engineering Co., Kansas City, Mo.
Rexoil—Oil Burners and Furnaces. Reif-Rexoil, Inc., Buffalo, N. Y.
Rex-Tube—Flexible Duct Connectors. Flexonics Corp., Maywood, Ill.
Rex-Weld—Flexible Duct Connectors. Flexonics Corp., Maywood, Ill.
Rex-Weld Unimetal—Flexible Hose. Flexonics Corp., Maywood, Ill.
Rexwelders—Spot Welders. Rex Welder & Engineering Co., Kansas City, Mo.
Rexistal—Stainless Steels. Crucible Steel Co., Pittsburgh, Pa.
R & G—Grilles. Register & Grille Mfg. Co., Inc., Brooklyn, N. Y.
Rheotrol—Horizontal Oil Burners. Breese Burners, Inc., Chicago, Ill.
Rhinamel—Enamels. Tropical Paint Co., Cleveland, Ohio.
Rhino—Compounds, Paint. Pecora Paint Co., Philadelphia, Pa.
Rhodes Universal—Sheet Metal Working Machines. U. S. Tool & Die, Inc., Sharpsburg, Pa.
R & I—Furnace Cement and Insulation, Baffles, Combustion Chambers. Refractory & Insulation Corp., New York, N. Y.
Rice—Furnace Brushes. Worcester Brush & Scraper Co., Div. Mason Worcester Co., Worcester, Mass.
Rid-All—Odor Adsorbers. Abbeon Supply Co., Jamaica, N.Y.
Rid All—Incinerators. Schwab Furnace Co., Milwaukee, Wis.
Ridge—Ventilators. Penn Ventilator Co., Philadelphia, Pa.
Ridgevent—Roof Ventilators. Octagon Ventilator Co., Chicago, Ill.
Ridgroler—Ridge Roof Ventilator. Klauer Mfg. Co., Dubuque, Iowa.
Rigid—Hack Saw Frames. Machine Rebuilding Co., Detroit, Mich.
Rigid-Tex—Metal Sheets. Rigidized Metals Corp., Buffalo, N. Y.
Rip-o-Lin—Enamels. Glidden Co., Cleveland, Ohio.
Rippl—Paint. Hilo Varnish Corp., Everett, Mass.
Ripple Fin—Coils. McQuay, Inc., Minneapolis, Minn.
Ripple Tube—Coils. McQuay, Inc., Minneapolis, Minn.
Rival—Conductor Straps. David Levow, New York, N. Y.
River Breeze—Exhausters and Fans. Kloppenborg Aluminum Fdry., Davenport, Iowa.
Rivnut—Blind Fasteners. B. F. Goodrich Co., Akron, Ohio.
R.I.W.—Paints and Waterproofing. Toch Bros., Inc., Staten Island, N. Y.
R. & M.—Motors, Hoists, Air Conditioning Units. Robbins & Myers, Inc., Springfield, Ohio.

Robinson—Presses. New Albany Machine Mfg. Co., New Albany, Ind.
 Robot—Thermostats. Miller-Harris Instrument Co., Milwaukee, Wis.
 Rock Cork—Insulation. Johns-Manville, New York, N.Y.
 Roof Flange—Flashing. Eagle-Picher Co., Cincinnati, Ohio.
 Roofkoter—Paint. Tropical Paint Co., Cleveland, Ohio.
 Rotary—Ventilators. Swartwout Co., Cleveland, Ohio.
 Roto—Insulating Cement and Combustion Chambers. Rex-Roto Corp., Detroit, Mich.
 Roto-Clone—Dust Collectors. American Air Filter Co., Inc., Louisville, Ky.
 Rotoflame—Oil Burners. Oil Equipment Laboratories, Inc., Elizabeth, N. J.
 Rotojet—Nozzles. Binks Mfg. Co., Chicago, Ill.
 Roxaprene—Enamels and Lacquers. Roxaline Flexible Finishes, Inc., Elizabeth, N. J.
 Royal—Furnaces. Hart & Crouse Corp., Oneida, N. Y.
 Royal—Furnaces. Chattanooga Royal Co., Chattanooga, Tenn.
 Royal—Ventilators. Penn Ventilator Co., Philadelphia, Pa.
 Royal—Water Heaters. Bastian-Morley Co., Inc., LaPorte, Ind.
 Royalastic—Roof Cement. A. Wilhelm Co., Reading, Pa.
 Royal Blue—Acid and Furnace Brushes. Schaefer Brush Mfg. Co., Milwaukee, Wis.
 Royal Clipper—Metal Cutter. Merchandising and Manufacturing Associates, Inc., Lancaster, Pa.
 RP—Dust & Grease Filters. Research Products Corp., Madison, Wis.
 RPM—Steel Sheets and Roofing. H. H. Robertson Co., Pittsburgh, Pa.
 R-R-M—Hygrometers, Psychrometers, Thermometers. Palmer Thermometers, Inc., Cincinnati, Ohio.
 Rubalt—Paints. Alfred Hague & Co., Brooklyn, N. Y.
 Rubber-in-Shear—Vibration Isolating Pads. Korfund Co., Long Island City, N. Y.
 Rubyfluid—Solder, Soldering Flux. Ruby Chemical Co., Columbus, Ohio.
 R-U-F—Fans. Reed Unit-Fans, Inc., New Orleans, La.
 Rusco—Windows. F. C. Russell Co., Cleveland, Ohio.
 Rust Bloc No. 20—Coating. Turco Products, Inc., Washington, D. C.
 Rustgon—Rust Preventive Chemicals. Turco Products, Inc., Los Angeles, Calif.
 Rustnail—Paints. National Engineering Products, Inc., Washington, D. C.
 Rustrem—Aluminum Paint. Speco, Inc., Cleveland, Ohio.
 Rust Sol—Metal Cleaner. Klem Chemicals, Inc., Dearborn, Mich.
 Ryndon—Ventilators. Sioux Steel Co., Sioux Falls, S. D.

S

Saf-Aire—Furnaces. Stewart-Warner Corp., U. S. Machine Div., Indianapolis, Ind.
 Safe-Hi—Ladder Shoes. Rose Mfg. Co., Denver, Colo.
 Safety Circle—Motors. Allis-Chalmers Mfg. Co., Milwaukee, Wis.
 Safety Silhouette—Warehouse Trucks. Yale & Towne Mfg. Co., Philadelphia, Pa.
 St. Louis—Stoker. Ormsby-Osterman Co., St. Louis, Mo.
 Sal-Mo—Cement, Insulation, Flexible Duct Connections, Asbestos Paper,

Paste, Non-Metallic Sheets. Sall Mountain Co., Hamilton, Ohio.
 Salamander—Roofing Felt. Johns-Manville, New York, N.Y.
 Samco—Cement. Standard Asbestos Mfg. Co., Chicago, Ill.
 Samco—Floor Furnaces. Samuel Stamping & Enameling Co., Chattanooga, Tenn.
 Satanite—Refractories. Green Fire Brick Co., A. P., Mexico, Mo.
 Sampson—Furnace Brushes. Worcester Brush & Scraper Co., Worcester, Mass.
 Sav-A-Tank—Rust Preventive. Sudbury Laboratory, South Sudbury, Mass.
 Sav-Haf—Oil Burners. Breeze Corps., Inc., Newark, N. J.
 Saw Gun—Portable Hack Saw. Mid-States Welder Mfg. Co., Chicago, Ill.
 Sax—Oil Burners. Aldrich Co., Wyoming, Ill.
 SC—Bearings. Dodge Mfg. Corp., Mishawaka, Ind.
 Schild-Bilt—Attic Fans. Fresh Air Circulator Co., Houston, Tex.
 Schmidt—Soldering and Brazing Torches. Minn-Kota Foundry & Mfg. Co., Fargo, N. D.
 Sco-Co—Roof Cement, Caulking Compounds, Paint, Waterproofing. Southport Paint Co., Savannah, Ga.
 Scotsman—Gas Burners, Furnaces. Queen Stove Works, Inc., Albert Lea, Minn.
 Screw-Tite—Nails. Independent Nail & Packing Co., Bridgewater, Mass.
 Scribus-Dividus—Scribers, Dividers, Calipers, Wiggler, Nork Products Co., Los Angeles, Calif.
 Scrugun—Automatic Screw Driver. Black & Decker Mfg. Co., Towson, Md.
 S.D.T. Freeze Proof—Coils. John J. Nesbitt, Inc., Philadelphia, Pa.
 S-E—Gravity Roof Ventilators. Hirschman-Pohle Co., Inc., LeRoy, N. Y.
 Sealap—Roofing Cement. Johns-Manville, New York, N.Y.
 Sea Lion—Leather Belting. Chicago Belting Co., Chicago, Ill.
 Seal Master—Bearings. Stephens-Adamson Mfg. Co., Aurora, Ill.
 Seal of Quality—Roofing. Columbia-Geneva Steel, Div. United States Steel Corp., San Francisco, Calif.
 Sealtight—Roof Cement, Caulking Compounds, Roofing Felt, Flashings. W. R. Meadows, Inc., Elgin, Ill.
 Seal-Tite—Registers. Char-Gale Mfg. Co., Minneapolis, Minn.
 Seasonmaker—Air Conditioning Units, Evaporative Coolers. McQuay, Inc., Minneapolis, Minn.
 Seasonmaster—Air Conditioning Units. McQuay, Inc., Minneapolis, Minn.
 Security—Caulking Compounds and Felt Roofing. National Mfg. Corp., Tonawanda, N. Y.
 Security—Furnaces, Water Heaters. Rasch Mfg. Corp., Kansas City, Mo.
 Selectair—Air Conditioning Units and Oil Furnaces. S. T. Johnson Co., Oakland, Calif.
 Selectric—Storage Water Heaters. Bastian-Morley Co., Inc., LaPorte, Ind.
 Selfweld—Welding Rod. Lincoln Electric Co., Cleveland, O.
 Sells—Bearings. Royersford Foundry & Machine Co., Royersford, Pa.
 Semco—Sheet Metal Working Machines. Service Machine Co., Inc., Elizabeth, N.J.
 Sems—Sheet Metal Screws. Shakeproof Div., Illinois Tool Works, Chicago, Ill.
 Sensatherm—Thermostats. Mercoid Corp., Chicago, Ill.
 Sensitrol—Electrical Relays. Weston Electrical Instrument Corp., Newark, N. J.

Sentinel—Water Heaters. General Water Heater Corp., Burbank, Calif.
 Sentry—Barometric Dampers, Tank Gauges. Krueger Sentry Gauge Co., Green Bay, Wis.
 Service-Master—Truck Bodies. McCabe Powers Auto Body Co., St. Louis, Mo.
 Service-Twins—Truck Bodies. McCabe Powers Auto Body Co., St. Louis, Mo.
 Sette—Fuel Oil Filters. Marquart Mfg. Co., Oakland, Calif.
 SGP—Gas Conversion Burners, Security Mfg. Co., Kansas City, Mo.
 Shademaker—Awnings. Cramer Mfg. Co., Canton, O.
 Shafer—Bearings. Chain Belt Co., Milwaukee, Wis.
 Shaft-King—Variable Speed Transmissions. American Pulley Co., Philadelphia, Pa.
 Shallo-Well—Floor Furnace. Oran Co., Columbus, Ohio.
 Shelby—Tubing. National Tube Div., U. S. Steel Corp., Pittsburgh, Pa.
 Shelhed—Oil Burners. Metromatic Mfg. Co., Everett, Mass.
 Shield-Arc—Welding Rod, Welders. Lincoln Electric Co., Cleveland, Ohio.
 Shipley—Air Conditioning Units. York-Shipley, Inc., York, Pa.
 Shock Absorbing—Pillow Blocks. Triangle Mfg. Co., Oshkosh, Wis.
 Shopmate—Electric Buffers, Grinders, Polishers and Sanders, Electric Drills. Portable Electric Tools, Inc., Chicago, Ill.
 Shorty—Furnaces. John Zink Co., Tulsa, Okla.
 Shower-Proof—Paint. Calbar Paint & Varnish Co., Philadelphia, Pa.
 Shur Grip—File and Solder Iron Handles. Duro-Dyne Corp., New Hyde Park, L.I., N. Y.
 Shut-O-Vent—Louvers and Shutters. Reed Unit-Fans, Inc., New Orleans, La.
 Sierra Air—Evaporative Coolers. International Sales Co., San Francisco, Calif.
 Sievert—Soldering Furnaces and Torches. J. A. Sanders, Fulton, N. Y.
 Sil-Bond—Silver Solder. United Wire & Supply Corp., Providence, R. I.
 Silent—Blowers. Air Conditioning Equipment Co., Minneapolis, Minn.
 Silent Duct—Flexible Duct Connections. Elgen Mfg. Corp., Long Island City, N.Y.
 Silent-glow—Oil Burners. Calor Oil Burners Corp., Hartford, Conn.
 Silent Korth—Oil Burners. Eckhart Mfg. Co., Inc., Union, N. J.
 Silentblu—Gas Burners. Beck Engineering Combustion Company, St. Louis, Mo.
 Silentvane—Blowers. Westinghouse Electric Corp., Sturtevant Div., Boston, Mass.
 Sil-Flux—Flux. United Wire & Supply Corp., Providence, R. I.
 Sil-Fos—Solder. Handy & Harman, New York, N. Y.
 Silicon Bronze—Bolts. Chase Brass & Copper Co., Inc., Waterbury, Conn.
 Silool—Fuel Oil Tank Solvent. Petroleum Solvents Corp., New York, N. Y.
 Siloy-Soder—Solder. L. B. Allen Co., Inc., Chicago, Ill.
 Silver-Soder—Solder. L. B. Allen Co., Inc., Chicago, Ill.
 Silver Steel—Band Saw and Hack Saw Blades. E. C. Atkins & Co., Indianapolis, Ind.
 Simplex—Flashing. Keystone Flashing Co., Philadelphia, Pa.
 Simplex—Vise. Desmond-Stephan Mfg. Co., Urbana, O.
 Sim-trol—Barometric Dampers. Simplex Mfg. Co., Fond du Lac, Wis.

Sioux—Drills, Grinders, Sanders. Albertson & Co., Inc., Sioux City, Iowa.

Sirocco—Blowers, Washers. American Blower Corp., Detroit, Mich.

S. I. S.—Cement. Barrett Div., Allied Chemical & Dye Corp., New York, N. Y.

Sisalation—Reflective Insulation. American Sisalkraft Corp., Attleboro, Mass.

Skymaster—Roof Ventilators. Acme Equipment Co. of Oklahoma, Inc., Muskogee, Okla.

S-L—Bar Folders, Nibblers, Slitting Machines. St. Louis Tool Co., St. Louis, Mo.

Slatekote—Roofing Felt. Johns-Manville, New York, N.Y.

Sleevoil—Bearings. Dodge Mfg. Corp., Mishawaka, Ind.

Slo-Speed—Motors. Sterling Electric Motors, Inc., Los Angeles, Calif.

Smith's—Cleat Benders. R. E. Smith, Waukegan, Ill.

Smithway—Water Storage Heaters, Stokers, Welders. A. O. Smith Corp., Milwaukee, Wis.

Smithway-Burkay—Gas Conversion Burners. A. O. Smith Corp., Toledo, Ohio.

Smoothlite—Insulation. Insulite Div., Minnesota and Ontario Paper Co., Minneapolis, Minn.

S-N—Furnaces. Oil and Gas Burners. Barber Gas Burner Co., Cleveland, O.

Snap Action—Humidifier Valves. McDonnell & Miller, Inc., Chicago, Ill.

Snap-Lock—Clamp Pliers. Seymour Smith & Son, Inc., Oakville, Conn.

Snaplok—Furnace Pipe. Reeves Steel & Mfg. Co., Dover, Ohio.

Snap-On—Gutter Guards. Lockhart Mfg. Corp., Detroit, Mich.

Snappy—Duct Fitting Accessories, Furnace Pipe & Fittings. Tri-State Heating, Inc., Detroit Lakes, Minn.

Snap-Rite—Ducts, Pipe and Fittings. Gray Metal Products, Inc., Rochester, N. Y.

Snaptite—Gutter Fittings. Berger Mfg. Div., Republic Steel Corp., Canton, Ohio.

Sno-Breze—Evaporative Coolers. Palmer Mfg. Corp., Phoenix, Ariz.

Soder—Solder. L. B. Allen Co., Inc., Chicago, Ill.

Sod-R-Brze—Soldering Torches. National Cylinder Gas Co., Chicago, Ill.

Sola-Flame—Oil Burners. East Coast Co., Boston, Mass.

Solaraire—Furnace. St. Louis Furnace Mfg. Co., St. Louis, Mo.

Solar Flame—Oil Burners. United States Radiator Corp., Detroit, Mich.

Solderprep—Flux for Steel. Neilson Chemical Co., Detroit, Mich.

Solex—Heat Insulating Windows. Pittsburgh Plate Glass Co., Pittsburgh, Pa.

Sol-Flux—Soldering Flux. Klem Chemical Works, Dearborn, Mich.

Sonoairduct—Non-metallic Ducts. Sonoco Products Co., Construction Products Div., Hartsville, S. C.

Sonoairduct-XP—Non-metallic Ducts. Sonoco Products Co., Construction Products Div., Hartsville, S. C.

Sonolastic—Asphalt Paint. L. Sonneborn Sons, Inc., New York, N. Y.

Soot Destroyer—Soot Removers. Sid Harvey, Inc., Valley Stream, N.Y.

Soot Master—Furnace Vacuum Cleaners. Master-Craft Supply Co., Inc., Haverstraw, N.Y.

Sootracide—Soot Remover. Metropolitan Refining Co., Inc., Long Island City, N. Y.

Soroco—Chimney Caps and Tops. Southbridge Roofing Co., Inc., Southbridge, Mass.

Southaire—Furnace Pipe and Fittings, Stokers, Furnaces. E. E. Souther Iron Co., St. Louis, Mo.

Spacesaver—Suspended Furnaces. Payne Furnace Div., Affiliated Gas Equipment Inc., Monrovia, Calif.

Special X—Flux. Industrial Service Laboratories, Milwaukee, Wis.

Speco—Soldering Flux. Pfanstiehl Chemical Co., Waukegan, Ill.

Speed Clamps—Sheet Metal Fastenings. Tinnerman Products, Inc., Cleveland, Ohio.

Speed Clips—Spring Steel Fastenings. Tinnerman Products, Inc., Cleveland, Ohio.

Speed Grips—Sheet Metal Fastenings. Tinnerman Products, Inc., Cleveland, Ohio.

Speed-heat—Furnaces. Marshall Furnace Co., Marshall, Mich.

Speedmaster—Water Heaters. Handley-Brown Heater Co., Jackson, Mich.

Speed Nuts—Sheet Metal Fastenings. Tinnerman Products, Inc., Cleveland, Ohio.

Speedomax—Recorders. Leeds & Northrup Co., Philadelphia, Pa.

Speed Seam—Sheet Metal Working Machines. M. Brucker, Inc., Chicago, Ill.

Speed-Trol—Transmissions, Motors, Sterling Electric Motors, Inc., Los Angeles, Calif.

Speedy-Cals—Name Plates. North Shore Nameplate, Inc., Bayside, L.I., N.Y.

Spinner—Ventilators. Inland Steel Products Co., Milwaukee, Wis.

Spintex—Insulation. Johns-Manville, New York, N.Y.

Spiratube—Flexible Duct Connections and Non-Metallic Fittings. Flexible Tubing Corp., Guilford, Conn.

Spirovane—Fans. Western Blower Co., Seattle, Wash.

Spongex—Vibration Isolating Pads, Seals for Registers. Sponge Rubber Products Co., Shelton, Conn.

Spot-Aire—Air Conditioning Units. Drayer-Hanson, Inc., Los Angeles, Calif.

Spraco—Spray Guns, Humidifiers, Nozzles, Air Washers. Spray Engineering Co., Somerville, Mass.

Sprague—Furnaces. Katelman Foundry & Mfg. Co., Council Bluffs, Iowa.

Spra-Rite—Nozzles. Binks Mfg. Co., Chicago, Ill.

Spray-Acoustic—Insulation. Sprayo-Flake Co., Chicago, Ill.

Spray-Cote—Insulation. Sprayo-Flake Company, Chicago, Ill.

Sprayit—Paint Guns. Electric Sprayit Div., Thomas Industries Inc., Sheboygan, Wis.

Spraymaster—Paint Spray Guns. Portable Electric Tools, Inc., Chicago, Ill.

Spray-Seal—Insulation. Sprayo-Flake Co., Chicago, Ill.

Spraywelder—Metal Spray Guns. Wall Colmonoy Corp., Detroit, Mich.

Spray Wheel—Evaporative Coolers. Mountain States Equipment Co., Denver, Colo.

Spreaderflame—Gas Conversion Burners. Eckhart Mfg. Co., Inc., Union, N. J.

Springin—Toggle Bolts. Star Expansion Bolt Co., New York, N. Y.

Spunsteel—Pulleys. Spun Steel Corporation, Canton, Ohio.

Spur Geared—Hand Hoists. Yale & Towne Mfg. Co., Philadelphia, Pa.

Squarehed—Aluminum Nails. Independent Nail & Packing Co., Bridgewater, Mass.

S.R.P. 75—Sheet Metal Paint. L. Sonneborn Sons, Inc., New York, N. Y.

S.R.P. 87—Sheet Metal Paint. L. Sonneborn Sons, Inc., New York, N. Y.

Ssirco—Ridge Roll, Roofing, Metal Shingles and Tile. Southern States Iron Roofing Co., Savannah, Ga.

Stable-Arc—Welding Rod. Lincoln Electric Co., Cleveland, Ohio.

Stackmaster—Furnace Regulator. Campbell Eng. Co., Appleton, Wis.

Stack-O-Meter—CO₂ Analyzer. Davis Emergency Equipment Co., Newark, N. J.

Stainlend—Welding Rod. Arcos Corp., Philadelphia, Pa.

Stainless 20—Stainless Clad Sheets. Lukens Steel Co., Coatesville, Pa.

Sta-Lok—Prefabricated Ducts and Duct Fittings. Chicago Furnace Supply Co., Chicago, Ill.

Stamco—Furnace Pipe, Fittings. Cincinnati Stamping & Furnace Co., Cincinnati, Ohio.

Standard—Roof Ventilators. Burt Mfg. Co., Akron, Ohio.

Standard—Furnace. Farris Furnace Co., Springfield, Ill.

Standard—Furnaces. Home Furnace Co., Holland, Mich.

Standard—Furnaces. Williamson Heater Co., Cincinnati, Ohio.

Standard I.F.B.—Combustion Chambers. A. P. Green Fire Brick Co., Mexico, Mo.

Standard Stationary—Ventilators. Allen Ventilator Div., Production Planning Co., Rochester, Mich.

Standardized—Grilles. Standard Stamping & Perforating Co., Chicago, Ill.

Stanflame—Gas Burners, Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.

Star—Hack Saw Blades. Clemson Bros., Inc., Middletown, N. Y.

Star—Oil Burners. Mechanical Products Co., Seattle, Wash.

Stark—Furnaces. Hess-Snyder Co., Massillon, Ohio.

Sta-Steel—Soldering Flux. London Chemical Co., Chicago, Ill.

Statick—Ventilators. Hirschmann-Pohle Co., Inc., LeRoy, N. Y.

Staxausters—Ventilators. Allen Ventilator Div., Production Planning Co., Rochester, Mich.

Staynew—Air Filters. Dollinger Corp., Rochester, N. Y.

Steel Cable—V-Belts. Goodyear Tire & Rubber Co., Inc., Akron, Ohio.

Steel City—Furnaces. Ruby Management Co., Pittsburgh, Pa.

Steelco—Gutter Guards. Steele Mfg. Co., Ashland, Ky.

Steelfab—Squaring Shears & Presses. Highland Engineering Co., Santa Monica, Calif.

Steel-Fin—Heating Coils. New York Blower Co., Chicago, Ill.

Steelweld—Sheet Metal Working Machinery. Cleveland Crane & Engineering Co., Wickliffe, Ohio.

Sterling—Evaporative Coolers and Compressors. Reynolds Mfg. Co., Springfield, Mo.

Sterling Belder—Beading Machines. F. L. Robertson, Buffalo, N. Y.

Steward—Brakes, Benders. Ward Machinery Co., Chicago, Ill.

Stic-Tite—Cement. Refractory & Insulation Corp., New York, N. Y.

Stok-A-Timer—Stoker Controls. Merco Corp., Chicago, Ill.

Stokerator—Domestic Stokers. Northern Steel & Stoker Corp., Peoria, Ill.

Stoker-Disk—Baffles. Insulation & Refractories Co., Williamson, N. Y.
 Stokerelay—Relays. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Stokerett—Domestic Stokers. Worsham Co., Inc., Long Beach, Calif.
 Stokol—Stokers. Eddy Stoker Corp., Chicago, Ill.
 Stonewall—Asbestos-Cement Board. Ruberoid Co., New York, N. Y.
 Stop-It—Waterproofing. Tamms Industries Inc., Chicago, Ill.
 Storm-Pruf—Oil Burner Vent Caps. Bearlee Products Co., Green Bay, Wis.
 Stormseal—Sheet Metal Roofing. American Steel & Wire Div., United States Steel Corp., Cleveland, Ohio; Columbia-Geneva Steel, Div. United States Steel Corp., San Francisco, Calif.; United States Steel Corp., Pittsburgh, Pa.
 Stormtight—Roof Cement and Paint. L. Sonneborn Sons, Inc., New York.
 Stowaway—Suspended Furnaces. Lennox Furnace Co., Marshalltown, Iowa.
 Straight Edge—Duct and Duct Fittings. Cross & Currier Mfg. Co., Inc., Claremont, N. H.
 Strato Cap—Roof Ventilators. Ryniker Steel Products Co., Billings, Mont.
 Strato-Liminator—Air Diffusers. Wilster, Inc., Cleveland, Ohio.
 Streamjet—Water Nozzles. Spraying Systems Co., Bellwood, Ill.
 Streamline—Ridge Ventilators. H. H. Robertson Co., Pittsburgh, Pa.
 Streamline—Copper Tubing and Fittings, Dehydrators, Heat Exchangers, Flux, Solder, Welding Rod, Valves. Mueller Brass Co., Port Huron, Mich.
 Streamlined—Combustion Chambers. A. P. Green Fire Brick Co., Mexico, Mo.
 Streamliner—Directional Flow Registers. Auer Register Co., Cleveland, Ohio.
 Streekn—Register Packing. Excel Heating & Air Conditioning Co., Chicago.
 Strongbarn—Corrugated Steel Roofing. Granite City Steel Co., Granite City, Ill.
 Stronghold—Nails. Independent Nail & Packing Co., Bridgewater, Mass.
 Structoglas—Plastic Panels. International Molded Plastics, Inc., Cleveland, O.
 ST-type—Gas Burner Pilots. John Zink Co., Tulsa, Okla.
 Stubby—Floor Furnace. Holly Mfg. Co., Pasadena, Calif.
 Stud-Pak—Insulation. United States Mineral Wool Co., Stanhope, N. J.
 Styx—Roof Cement. Coopers Creek Chemical Corp., West Conshohocken, Pa.
 Suburbanaire—Furnaces. Mueller Climatrol, Milwaukee, Wis.
 Sue-Per—Water Heaters. Southwestern Heating Corp., Dallas, Texas.
 Sun—Air Conditioning Units. J. V. Pat-ten Co., Sycamore, Ill.
 Sun-Burst—Furnaces. Delta Heating Corp., Trenton, N. J.
 Sun Fuel Master—Furnaces. J. V. Pat-ten Co., Sycamore, Ill.
 Sun-Glow—Furnaces. Mortemp Div., Mechanical Products Co., Seattle.
 Super—Hangers and Fittings. Royal Apex Mfg. Co., Inc., Brooklyn, N. Y.
 Super—Heaters. Evans Products Co., Detroit, Mich.
 Super—Plastic Furnace Lining. Walsh Refractories Corp., St. Louis, Mo.
 Supersair—Air Conditioning Furnaces. St. Louis Furnace Mfg. Co., St. Louis, Mo.
 Super Cycle—Electric Tools. Chicago Pneumatic Tool Co., New York, N. Y.
 Superdraft—Blowers. Perfection Stove Co., Cleveland, Ohio.

Superfelt—Insulation. Johns-Manville, New York, N. Y.
 Superfin—Furnaces and Unit Heaters. American Fdry. & Furnace Co., Bloomington, Ill.
 Super Firma—Gravity Roof Ventilators. Hirschman-Pohle Co., Inc., LeRoy, N. Y.
 Superflame—Blowers, Gas Burners, and Furnaces. Queen Stove Works, Inc., Albert Lea, Minn.
 Super-Flo—Fans. John Zink Co., Tulsa, Okla.
 Super-Flo—Refrigerant Dehydrators. Remco, Inc., Zelienople, Pa.
 Superflux—Soldering Flux. Paul-Lewis Laboratories, Inc., Milwaukee, Wis.
 Superhot—Water Heaters. SuperBO Mfg. Co., Los Angeles, Calif.
 Superior—Enamels. Blue Ridge Talc Co., Inc., Henry, Va.
 Superior—Blowers. American Foundry & Furnace Co., Bloomington, Ill.
 Superior—Storage Water Heaters. Bastian-Morley, Inc., LaPorte, Ind.
 Superior—Water Heaters. Crane Co., Chicago, Ill.
 Super-Jet—Soldering Torches. Fusion Engineering, Cleveland, Ohio.
 Supermetic—Compressors. Servel, Inc., Evansville, Ind.
 Super-Por-Seal—Waterproofing. Truscon Laboratories, Detroit, Mich.
 Super Red Streak—Furnace Cleaners. National Super Service Co., Inc., Toledo, Ohio.
 Super Saw—Power Saws. RCS Tool Sales Corp., Joliet, Ill.
 Super Sioux—Ventilators. Sioux Steel Co., Sioux Falls, S. D.
 Super 66—Insulation. Eagle-Picher Co., Cincinnati, Ohio.
 Super Slugger—Electric Power Hammers. Noble & Stanton, Inc., Bedford, Ohio.
 Super Speed—Mouldings and Trim. Appleton Supply Co., Inc., Appleton, Wis.
 Super-Spred—Stokers. Wm. Bros Boiler & Mfg. Co., Minneapolis, Minn.
 Super Steel—Furnaces. Williamson Heater Co., Cincinnati, Ohio.
 Super T—Controls. Tork Clock Co., Inc., Mt. Vernon, N. Y.
 Supertemp—Insulation. Eagle-Picher Co., Cincinnati, Ohio.
 Super-Thermo Stucco—Combustion Chambers Refractories. Chicago Fire Brick Co., Chicago, Ill.
 SuperTwist—Dust Recovery Bags. Master-Craft Supply Co., Inc., Haverstraw, N. Y.
 Super X—Sheets. Metals Div., Olin Mathieson Chemical Corp., East Alton, Ill.
 Supreme—Combustion Chambers. Sandberg Mfg. Co., Portland, Ore.
 Supreme—Enamels. Blue Ridge Talc Co., Inc., Henry, Va.
 Supreme—Direct Fired Heaters. Independence Stove & Mfg. Co., Independence, Mo.
 Supreme—Furnaces. Agricola Furnace Co., Inc., Gadsden, Ala.
 Supreme—Furnaces. McPherson Furnace & Supply Co., Portland, Ore.
 Supreme Everdur—Gas Water Heaters. General Water Heater Corp., Burbank, Calif.
 Supreme Steel—Gas Water Heaters. General Water Heater Corp., Burbank, Calif.
 Sure Draft—Chimney Tops. H. C. Little Burner Co., Inc., San Rafael, Calif.
 Surefit—Ducts, Fittings, Furnace and Smoke Pipe, and Fittings. Henry Furnace Co., Medina, Ohio.
 Sure-Foot—Ladder Base. Akron Steel Sales, Inc., Akron, Ohio.

Surety—Roofing Felt. Philip Carey Mfg. Co., Cincinnati, Ohio.
 Sureweld—Welding Rod, Welders. National Cylinder Gas Co., Chicago, Ill.
 SuVener—Clad Sheets. Superior Steel Corp., Pittsburgh, Pa.
 Swannee—Galvanized Shingles. Berger Mfg. Div., Republic Steel Corp., Canton, Ohio.
 Swingburner—Oil Burners. Swingfire Div., Devenco, Inc., New York, N. Y.
 Switchmaster—Controls. Tork Clock Co., Inc., Mt. Vernon, N. Y.
 Sylphon—Thermostats. Fulton Sylphon Div., Robertshaw-Fulton Controls Co., Knoxville, Tenn.
 Symentrex—Waterproofing. A. C. Horn Co., Inc., Long Island City, N. Y.
 Symonds—Registers. Front Rank Furnace Co., Div., Liberty Foundry Co., St. Louis, Mo.
 Synchron—Stoker Controls, Relays, Switches. Industrial Engineering Corp., Terre Haute, Ind.
 Syncrogear—Motors. U. S. Electrical Motors, Inc., Los Angeles, Calif.

T

Table-Top—Water Heaters. Handley-Brown Heater Co., Jackson, Mich.
 Tag—Controls, Hygrometers, Recorders, Psychrometers, Thermometers. Weston Electrical Instrument Corp., Newark, N. Y.
 Tamanite—Metal Conditioner. Tamms Industries Inc., Chicago, Ill.
 Tamco—Ventilators. Tiffin Art Metal Co., Tiffin, Ohio.
 Tam-Putty—Caulking Compound. Tamms Industries Inc., Chicago, Ill.
 Tamtex—Paint. Tamms Industries Inc., Chicago, Ill.
 Tank-Kleen—Solvent. Celco Corp., New York, N. Y.
 Tank-O-Meter—Gauges. Uehling Instrument Co., Paterson, N. J.
 Taperlock—Fan & Motor Pulleys. Dodge Mfg. Corp., Mishawaka, Ind.
 Tapgun—Portable Electric Tapper. Black & Decker Mfg. Co., Towson, Md.
 Tarbestos—Roofing Paint. Philip Carey Mfg. Co., Cincinnati, Ohio.
 Teejet—Water Nozzles. Spraying Systems Co., Bellwood, Ill.
 Tee Joint—Duct and Duct Accessories. Inland Steel Products Co., Milwaukee, Wis.
 Teg Conditioner—Blower-Filter Units. National Air Conditioning, Inc., Johnstown, Pa.
 Teletrol—Controls. Airgard Mfg. Co., Chicago, Ill.
 Tel-Tru—Psychrometers, Thermometers, Air Testing Instruments. E. Vernon Hill & Co., Lake Geneva, Wis.
 Tem-Clock—Clock Thermostats. Penn Controls, Inc., Goshen, Ind.
 Temlok—Insulation. Armstrong Cork Co., Lancaster, Pa.
 Temmaster—Thermostats. Crown Controls Co., Inc., New Bremen, Ohio.
 Tempoint—Thermometer. Bacharach Industrial Instrument Co., Pittsburgh, Pa.
 Temp-R-Izer—Gas Burners. Laharco Industries, Minneapolis, Minn.
 Tempscribe—Portable Temperature Recorder. Bacharach Industrial Instrument Co., Pittsburgh, Pa.
 Tennessee—Sheet Metal Roofing. Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala.
 Tension-Lap—Roofing Steel. Inland Steel Co., Chicago, Ill.

- Tensulate**—Insulation. Tennessee Products & Chemical Corp., Nashville, Tenn.
- TePee**—Burners, Furnaces, Water Heaters. Thermo-Products, Inc., North Judson, Ind.
- Tergitol**—Cleaning Compounds. Carbide & Carbon Chemicals Co., Div. Union Carbide & Carbon Corp., New York, N. Y.
- Texamo**—Refractories. A. P. Green Fire Brick Co., Mexico, Mo.
- Texan**—Water Heaters. Hotstream Heater Co., Cleveland, Ohio.
- Textrope**—V-Belts. Allis-Chalmers Mfg. Co., Milwaukee, Wis.
- T-Flo**—Dehydrators. Ansul Chemical Co., Refrigeration Div., Marinette, Wis.
- Tharco**—Furnace Cement. The Armstrong Co., Chicago, Ill.
- Thawzone**—Dehydrators. Highside Chemicals Co., Clifton, N. J.
- Thermador**—Fans, Electric Wall Furnaces, Electric Water Heaters, Transformers, Evaporative Air Conditioning Units. Norris-Thermador Corp., Los Angeles, Calif.
- Thermaxflex**—Non-metallic Duct Fittings. Flexible Tubing Corp., Guilford, Conn.
- Therma-Flo**—Furnaces. Kleer-Kleen Mfg. Co., Hayward, Calif.
- Thermalfuel**—Furnaces. Beck Engineering Combustion Co., St. Louis, Mo.
- Thermalite**—Paint. Tropical Paint Co., Cleveland, Ohio.
- Thermaload**—Electrical Relays. The Monitor Controller Co., Div. of Ultrasonic Corp., Cambridge, Mass.
- Therm-A-Neered**—Controls. Westinghouse Electric Corp., Pittsburgh, Pa.
- Thermaster**—Furnaces. Thatcher Furnace Co., Garwood, N. J.
- Thermidaire**—Blowers, Furnaces. E. K. Campbell Co., Kansas City, Mo.
- Thermo**—Furnaces. American Furnace Co., St. Louis, Mo.
- Thermosanemometer**—Anemometer. Willson Products, Inc., Reading, Pa.
- Thermo-Base**—Baseboard Diffusers. Gerwin Industries, Thermo-Base Div., Michigan City, Ind.
- Thermobloc**—Furnaces. Prat-Daniel Corp., South Norwalk, Conn.
- Thermo-Drip**—Humidifier. Automatic Humidifier Co., Cedar Falls, Iowa.
- Thermodulor**—Controls. Carvell Heat Equipment Co., Los Angeles, Calif.
- Thermogas**—Furnaces. Beck Engineering Combustion Company, St. Louis, Mo.
- Therm-o-glo**—Insulating Cement. National Fuel Conservation Co., Inc., White Plains, N. Y.
- Thermograph**—Temperature Recorders. Friez Instrument Div., Bendix Aviation Corp., Baltimore, Md.
- Thermo-Humidigraph**—Humidity Recorders. Bristol Co., Waterbury, Conn.
- Thermoil**—Furnaces. Beck Engineering Combustion Company, St. Louis, Mo.
- Thermoil-Granodine**—Coating Chemical for Steel or Iron Surfaces. American Chemical Paint Co., Ambler, Pa.
- Thermo Lo**—Brazing Flux. Farrelloy Co., Philadelphia, Pa.
- Thermolux**—Water Heaters. Los Angeles Gas Appliance Co., Los Angeles, Calif.
- Thermopilot**—Controls. General Controls Co., Glendale, Calif.
- Thermoseal**—Windows. F. C. Russell Co., Cleveland, Ohio.
- Thermoswitch**—Controls. Fenwal, Inc., Ashland, Mass.
- Thermotex B**—Insulating Cement, Waterproofing. Philip Carey Mfg. Co., Cincinnati, Ohio.
- Thermotite**—Insulation. Coast Insulating Products, Los Angeles, Calif.
- Thermotrol**—Thermometers. Wheelco Instruments Div., Barber-Colman Co., Rockford, Ill.
- Thin-Man**—Registers. Register & Grille Mfg. Co., Inc., Brooklyn, N. Y.
- Thorobred**—V Belts. Dayton Rubber Co., Dayton, O.
- Three-Phase**—Welders. Sciaky Bros., Chicago, Ill.
- 370 Special**—Paints. Thompson & Co., Oakmont, Pa.
- Thrift**—Time Switches. Tork Clock Co., Inc., Mt. Vernon, N. Y.
- Thulman**—Prefabricated Chimneys. Chimney Sales Corp., Washington, D. C.
- Thunder-Core**—Hammer bits. New England Carbide Tool Co., Inc., Cambridge, Mass.
- Thunder-Twist**—Carbide Tipped Bits, Chuck Wrenches. New England Carbide Tool Co., Inc., Cambridge, Mass.
- Ti-Co**—Sheets. Inland Steel Co., Chicago, Ill.
- Tik Wheat**—Asbestos Paper Paste. Clark Stek-O Corp., Rochester, N. Y.
- Tillery's**—Furnace Clock. Little Janitor Furnace Clock Co., New York, N. Y.
- Time-O-Switch**—Time Switches. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
- Timercold**—Time Switches. Mercoid Corp., Chicago, Ill.
- Timereley**—Relays. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
- Ti-Namel**—Vitreous Enameling Alloy Steel Sheets. Inland Steel Co., Chicago, Ill.
- Tinezy**—Solder. Farrelloy Co., Inc., Philadelphia, Pa.
- Tinner's Red**—Paint. Pittsburgh Plate Glass Co., Pittsburgh, Pa.
- Tinol**—Soldering Flux. American Solder & Flux Co., Philadelphia, Pa.
- Tite-Lite**—Caulking Compound. Truscon Laboratories, Detroit, Mich.
- Titelock**—Duct and Duct Accessories. Inland Steel Products Co., Milwaukee, Wis.
- Titeseal**—Furnace Cement. Radiator Specialty Co., Charlotte, N. C.
- Toastmaster**—Electric Water Heaters. McGraw Electric Co., Clark Div., Chicago, Ill.
- Tobin Bronze**—Plates and Welding Rod. American Brass Co., New York, N. Y.
- Tocoseal**—Roof Cement. Tropical Paint Co., Cleveland, Ohio.
- Tool Line**—Grinders. Brown-Brockmeyer Co., Inc., Dayton, O.
- Topseal**—Sheet Metal Fastenings. Fabricated Products Co., West Newton, Pa.
- Torchweld**—Torches. National Cylinder Gas Co., Chicago, Ill.
- Toridaire**—Furnaces. Fraser and Johnston Co., San Francisco, Calif.
- Toridmaster**—Conversion Burners. Modern Controls Corporation, Centerline, Mich.
- Torkmaster**—Switches. Tork Clock Co., Inc., Mt. Vernon, N. Y.
- Torkotherm**—Thermostats. Tork Clock Co., Inc., Mt. Vernon, N. Y.
- Tornado**—Furnace Vacuum Cleaners. Breuer Electric Mfg. Co., Chicago, Ill.
- Torrid**—Soldering Furnaces. J. D. Polis Mfg. Co., Chicago, Ill.
- Torrid Zone**—Furnaces. Lennox Furnace Co., Marshalltown, Iowa.
- Totalume**—Aluminum Paint. Wilbur & Williams Co., Brighton, Mass.
- Totrust**—Paints, Enamels. Wilbur & Williams Co., Brighton, Mass.
- Town & Country**—Air Conditioning Units, Furnaces. Conco Engineering Works, Mendota, Ill.
- Trace**—Leak Detectors. Highside Chemicals Co., Clifton, N. J.
- Tramrail**—Hoists, Monorails. Cleveland Crane & Engineering Co., Wickliffe, Ohio.
- Transite**—Asbestos Duct, Asbestos Sheet. Johns-Manville, New York, N. Y.
- Transitop**—Non-Metallic Sheets. Johns-Manville, New York, N. Y.
- Transparent**—CO₂ Analyzers. F. W. Dwyer Mfg. Co., Chicago, Ill.
- Trapit**—Fuel Oil Filters. A-P Controls Corp., Milwaukee, Wis.
- Trentweld**—Steel Tubing. Crucible Steel Co., Pittsburgh, Pa.
- Triangle**—Water Heaters. Day & Night Div., Affiliated Gas Equipment Co., Inc., Monrovia, Calif.
- Tribloc**—Hoists. Ford Chain Block Div., American Chain and Cable Co., Inc., York, Penn.
- Tridene**—Metal Cleaner. E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.
- Trico**—Draft Diverters, Furnaces. Tri-State Heating Supply Inc., Fort Wayne, Ind.
- Tri-Core**—Solder. Alpha Metals, Inc., Jersey City, N. J.
- Tri-Flex**—Grilles, Registers. Tuttle & Bailey, Inc., New Britain, Conn.
- Tri-Flux**—Soldering Flux. Wolfe-Kote Co., Sheboygan, Wis.
- Trimatic**—Gas Burner Pilots. Lowell & Grayson Mfg. Co., Monrovia, Calif.
- Appleton, Wis.**
- Tripl-Lock**—Roofing Nails. The Deniston Co., Chicago, Ill.
- Tripl-life**—Furnaces. Williamson Heater Co., Cincinnati, Ohio.
- Triple A**—Paints. Quigley Co., Inc., New York, N. Y.
- Triple-Lok**—Copper Tube Fittings. Parker Appliance Co., Cleveland, Ohio.
- Tri-Snips**—Multi-purpose Snips. Roto-Table Co., Dayton, Ohio.
- Triump**—Direct Fired Heaters. Independence Stove & Mfg. Co., Independence, Mo.
- Triumph**—Water Heaters. Koil-Les Heater Co., Geneva, Ill.
- Tro-Laure**—Wall Furnaces. San Carlos Mfg. Co., San Carlos, Calif.
- Tropicalk**—Caulking Compounds. Tropical Paint Co., Cleveland, Ohio.
- Tropic Breeze**—Furnaces. Dalzen Mfg. Co., St. Clair, Mich.
- True-Spot**—Smoke Testers. Bacharach Industrial Instrument Co., Pittsburgh, Pa.
- Truflex**—V Belts. Gates Rubber Co., Denver, Colo.
- Truflex**—Solder. General Plate Div., Metals & Controls Corp., Attleboro, Mass.
- Truliradiant**—Gas Burners. Sullivan Valve & Engineering Co., Butte, Mont.
- Trunkline**—Ducts and Duct Fittings. Norwalk Air Conditioning Corp., South Norwalk, Conn.
- Truscon**—Windows. Republic Steel Corp., Cleveland, O.
- Trussteel**—Dampers Clips. U. S. Register Co., Battle Creek, Mich.
- Tube-O-Flux**—Flux, Solder. American Products Corp., Chicago, Ill.
- Tuf-Flex**—Hack Saw Blades. Millers Falls Co., Greenfield, Mass.
- Turbine Rotary**—Ventilators. Western Engineering & Manufacturing Co., Los Angeles, Calif.

Turbo-Air Washers. Bayley Blower Company, Milwaukee, Wis.
Turbo-Base-Ventilators. Uno Ventilator Co., Malden, Mass.
Turbovane-Blowers. Westinghouse Electric Corp., Sturtevant Div., Boston, Mass.
TWC Weather Control-Controls. Tork Clock Co., Mt. Vernon, N. Y.
Twin Contact-Controls. Perfex Corp., Milwaukee, Wis.
Twin-Fyr-Oil Burner. Breeze Corps., Inc., Newark, N. J.
Two-Drain-Steel Roofing. Inland Steel Products Co., Milwaukee, Wis.
Two-Tank-T-Fuel Filters. Robert Barclay, Inc., Chicago, Ill.
Tygon-Metal Protecting Paint. United States Stoneware Co., New York, N. Y.
Tyl-Lyke-Steel Roofing and Siding. Continental Steel Corp., Kokomo, Ind.
Tymotherm-Thermostats. Tork Clock Company, Inc., Mount Vernon, N. Y.

U

Uclon-Sheet Metal Paint. United Chromium, Inc., New York, N. Y.
U-G-L-Furnace Cement. United Gilsonite Laboratories, Scranton, Pa.
Ultralite-Duct and Furnace Insulation. Gustin-Bacon Mfg. Co., Kansas City, Mo.
UMCO-Furnaces. Union Mfg. Co., Boyertown, Pa.
Unarco-Air Conditioning Units, Coils, Cooling Towers. Union Asbestos & Rubber Co., Chicago, Ill.
Unichrome-Sheet Metal Paint. United Chromium, Inc., New York, N. Y.
Uniclosed-Motors. U. S. Electrical Motors, Inc., Los Angeles, Calif.
Unicoil-Air Conditioning Units. Clarage Fan Co., Kalamazoo, Mich.
Unicon-Refrigerating Condensers. Krammer Trenton Co., Trenton, N. J.
Unifil-Insulation. Robinson Insulation Co., Great Falls, Mont.
Unifilter-Fuel Oil Filters. General Filters, Inc., Novi, Mich.
Uni-Flo-Grilles, Registers & Air Diffusers. Barber-Colman Co., Rockford, Ill.
Uniloy-Stainless Steel Sheets. Universal-Cyclops Steel Corp., Bridgeville, Pa.
Unimatic-Insulation Blowing Machines. Universal Insulating Co., Van Wert, O.
Unishear-Portable Electric Shears. Stanley Electric Tool Div., Stanley Works, New Britain, Conn.
Unisorb-Bases and Pads. Felters Co., Boston, Mass.
Unitaire-Air Conditioning Units. Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va.
Unitaire-Gas Furnaces. Hammel Radiator Eng. Co., Los Angeles, Calif.
Unitherm-Air Conditioning Units. Clarage Fan Co., Kalamazoo, Mich.
Uni-Tile-Combustion Chambers. Insulation & Refractories Co., Williamson, N. Y.
Universal-Angle Benders. Hossfeld Mfg. Co., Winona, Minn.
Universal-Electric Tools. Chicago Pneumatic Tool Co., New York, N. Y.
Universal-Waterproofing. Philip Carey Mfg. Co., Cincinnati, Ohio.
Uni-wash-Blow Pipe Collectors. Newcomb-Detroit Co., Detroit, Mich.
usAIRco-Air Conditioning Units, Blowers and Blower-Filter Units, Coils,

Grilles, and Blower Wheels. United States Air Conditioning Corp., Minneapolis, Minn.
U.S. Capitolaire-Furnaces and Air Conditioning Units. United States Radiator Corp., Detroit, Mich.
U-Set-Snips and Shears. W. H. Compton Shear Co., Newark, N. J.
USG-Built-Up Roofing and Roof Cement and Paint. United States Gypsum Co., Chicago, Ill.
USRC-Registers, Damper Regulators. United States Register Co., Battle Creek, Mich.
USS-Steel Products. Columbia-Geneva Steel Div., San Francisco, Calif.; National Tube Co., Pittsburgh, Pa.; Tennessee Coal and Iron Div., Fairfield, Ala.; United States Steel Corp., Pittsburgh, Pa.
Utilaire-Furnaces. Berger Furnace Corp., Belle Vernon, Pa.
Utility-Fan Ventilator. Arex Co., Chicago, Ill.
U Tube-Water Heaters. Handley Brown Heater Co., Jackson, Mich.

V

Vacu-Flo-Steel Tubing. H-P Products, Inc., Louisville, O.
Valcalox-Damper Regulators. Young Regulator Co., Cleveland, Ohio.
Valdura-Caulking Compounds, Paint. American-Marietta Co., Chicago, Ill.
Valley Forge-Cement. Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Valvent-Ventilators. Swartwout Co., Cleveland, Ohio.
Vanco-Flashing, Skylights and Ventilators. E. Van Noorden Co., Boston, Mass.
Vapoglas-Evaporative Humidifiers. Skuttle Mfg. Co., Milford, Mich.
Vaporite-Humidifiers. Automatic Humidifier Co., Cedar Falls, Iowa.
Vapor-Oil-Burners and Furnaces. Metro Metal Mfg. Co., Holt, Mich.
Vaporseal-Waterproofing. Angier Corp., Farmingham, Mass.
Varidrive-Motors, Transmissions. U. S. Electrical Motors, Inc., Los Angeles, Calif.
Vari-Pitch-Speed Changers. Allis-Chalmers Mfg. Co., Milwaukee, Wis.
V-Crimp-Roofing. Inland Steel Products Co., Milwaukee, Wis.
V-Drain-Roofing. Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala.
Veco-CO₂ Analyzers. Victory Engineering Corp., Union, N. J.
Veelos-V-Belts. Manheim Mfg. & Belting Co., Manheim, Pa.
Velometer-Air Velocity Meters. Illinois Testing Laboratories, Inc., Chicago, Ill.
Ventalarm-Fuel Tank Signal Gauge. Scully Signal Co., Melrose, Mass.
Ventbestos-Flexible Duct Connections. Iden Associates, Chicago, Ill.
Ventdome-Roof Ventilators. Wasco Flashing Co., Cambridge, Mass.
Ventfab-Flexible Duct Connections. Iden Associates, Chicago, Ill.
Ventglas-Flexible Duct Connections. Iden Associates, Chicago, Ill.
Ventrola-Ventilators. Fans. National Appliance Co., Detroit, Mich.
Ventura-Fans, Ventilators. American Blower Corp., Detroit, Mich.
Venturi-Flo-Air Diffusers, Ceiling Ventilators. Barber-Colman Co., Rockford, Ill.
Venturi-Top-Roof Ventilators, Chimney Caps and Tops, Vent Caps. Walker Mfg. & Sales Corp., St. Joseph, Mo.
Ventvinyl-Flexible Duct Connections. Iden Associates, Chicago, Ill.
Vermiculite-Insulation. International Vermiculite Co., Girard, Ill.
Vernois-Furnace Repair Parts. Mt. Vernon Furnace and Mfg. Co., Mt. Vernon, Ill.
Versat-Aire-Air Conditioning Units. Round Oak Co., Inc., Dowagiac, Mich.
Vertex-Caulking Compounds, Waterproofing, Paint. J. C. Whitlam Mfg. Co., Wadsworth, O.
Vibra-Cork-Vibration Isolating Bases. Korfund Co., Inc., Long Island City, N. Y.
Vibraglass-Vibration Isolating Bases and Pads. Glass Fibers Inc., Toledo, O.
Vibro-Insulators-Vibration Insulating Pads. B. F. Goodrich Co., Akron, Ohio.
Vibro-Isolator-Vibration Isolating Bases. Korfund Co., Inc., Long Island City, N. Y.
Victor-Blower-Filter Units, Furnaces, Oil Burners, Stokers. Hall-Neal Furnace Co., Indianapolis, Ind.
Victorgas-Gas Furnaces. Hall-Neal Furnace Co., Indianapolis, Ind.
Victorcoil-Oil Furnaces. Hall-Neal Furnace Co., Indianapolis, Ind.
Victory-Registers. Register & Grille Mfg. Co., Inc., Brooklyn, N. Y.
Vigoraire-Furnaces. Marshall Furnace Co., Marshall, Mich.
Vikimatic-Furnaces, Water Heaters. Viking Manufacturing Corp., Cleveland, Ohio.
Viking-Welders. Progressive Welder Sales Co., Detroit, Mich.
Vincul-Rust Remover. Protective Coatings, Inc., Detroit, Mich.
Visafume-Oil Burner Controls. Mercoid Corp., Chicago, Ill.
Vise-Grip-Clamps. Petersen Mfg. Co., Inc., DeWitt, Nebr.
Visi-Draft-Draft Gauge. F. W. Dwyer Mfg. Co., Chicago, Ill.
Vi-Speed-Pneumatic Hammer. Van Products Co., Erie, Pa.
Vital-Calker-Caulking Guns. Vital Products Mfg. Co., Cleveland, O.
Vitricel-Furnace Cement. Philip Carey Mfg. Co., Cincinnati, Ohio.
Vit-Rock-Water Heaters. Coleman Co., Inc., Wichita, Kans.
Vitro Flame-Oil Burners. Kresno-Stamm Mfg. Co., Palisades Pk., N. J.
Vitroliner-Prefabricated Chimneys, Chimney Linings, Vent and Flue Pipe and Fittings. Condensation Engineering Corp., Chicago, Ill.
Volocitrol-Air Control Vanes. Barber-Colman Co., Rockford, Ill.
Vornado-Fans, Motors, Furnaces, Air Conditioning Units. O. A. Sutton Corp., Wichita, Kans.
Vortex-Oil Burners. Iron Fireman Mfg. Co., Cleveland, Ohio.
V & S Drive-Variable Speed Transmissions. Reliance Electric & Engineering Co., Cleveland, O.
V & S Jr.-Variable Speed Transmissions. Reliance Electric & Engineering Co., Cleveland, O.
Vulcan-Stokers. Canton Stoker Corp., Canton, Ohio.
Vulcanite-Felt Roofing, Roofing Cement. Certain-teed Products Corp., Ardmore, Pa.
Vulcatex-Caulking and Glazing Compounds. A. C. Horn Co., Inc., Long Island City, N. Y.
Vulco-V-Belts and Pulleys. Gates Rubber Co., Denver, Colo.
Vulcomount-Pulleys. Gates Rubber Co., Denver, Colo.

W

W—Sheets. Wheeling Corrugating Co., Wheeling, W. Va.
 Walltax—Asbestos Paper Paste. Paisley Products, Inc., New York, N. Y.
 Warco—Refractories. Walsh Refractories Corp., St. Louis, Mo.
 Warco—Presses & Dies. Federal Machine & Welder Co., Warren, Ohio.
 Warehouse—Warehouse Trucks. Yale & Towne Mfg. Co., Philadelphia, Pa.
 Warmahl—Furnaces. Mahl Mfg. Co., Huntington Park, Calif.
 Wascolite Skydomes—Skylights. Wasco Flashing Co., Cambridge, Mass.
 Washington—Furnaces. Gray & Dudley Co., Nashville, Tenn.
 Watco—Spray Nozzles, Cooling Towers. Water Cooling Corp., New York, N. Y.
 Waterbase—Furnaces. Farris Furnace Co., Springfield, Ill.
 Water-Boy—Humidifier Valves. Maid-O'-Mist, Inc., Chicago, Ill.
 Waterbury—Oil Burners. Furnaces, Waterman-Waterbury Co., Minneapolis, Minn.
 Waterfoil—Waterproofing. A. C. Horn Co., Long Island City, N. Y.
 Waterloo Airfoil—Grilles, Louvers, Registers. Titus Manufacturing Corporation, Waterloo, Iowa.
 Water-RAY-trol—Oil-fired Water Heater. Ray Oil Burner Co., San Francisco, Calif.
 Waterseal—Cement. Thompson & Co., Oakmont, Pa.
 Waterspat—Enamels and Lacquers. Pittsburgh Plate Glass Co., Pittsburgh, Pa.
 Watertender—Humidifier Valves. Skuttle Mfg. Co., Milford, Mich.
 Wa-Trol—Duct Damper Regulators. Thermal Agency, Houston, Tex.
 WAW—Tools. W. A. Whitney Mfg. Co., Rockford, Ill.
 Weathercaster—Controls. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
 Weather-Chrome—Time Switches. Automatic Devices Co., Inc., Western Springs, Ill.
 Weather-Flo—Controls. Automatic Devices Co., Inc., Western Springs, Ill.
 Weathermaker—Air Conditioning Units. Carrier Corp., Syracuse, N. Y.
 Weather-Man—Weather Compensating Thermostats, Automatic Devices Co., Inc., Western Springs, Ill.
 Weath-R-Seal Washers—Sheet Metal Fastenings. Fabricated Products Co., West Newton, Pa.
 Webco—Portable Brakes. Webb Machine & Tool Co., Imperial, Pa.
 Wedgbelt—Belts. American Pulley Co., Philadelphia, Pa.
 Wedg-Tite—Pulleys. American Pulley Co., Philadelphia, Pa.
 Weir—Furnaces, Stokers. Meyer Furnace Co., Peoria, Ill.
 Weircoloy—Copper Bearing Galvanized Sheets. Weirton Steel Co., Weirton, W. Va.
 Weircote—Lead Sheets. Weirton Steel Co., Weirton, W. Va.
 Weirite—Tin Plate. Weirton Steel Co., Weirton, W. Va.
 Weirzin—Electrolitic Zinc Coated Sheets. Weirton Steel Co., Weirton, W. Va.
 Weisco—Skylight Lifts. H. Weiss & Co., New York, N. Y.
 Weldmaster—Brazing Torches. Modern Engineering Co., St. Louis, Mo.
 Weld-o-trol—Spot Welders. Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Wellsville Savage—Refractories. Chicago Fire Brick Co., Chicago, Ill.
 Wesco—Blower-Filters, Oil Burners, Cabinets & Casings, Furnaces. Northwest Foundry & Furnace Co., Portland, Ore.
 Western—Blowers, Furnaces. International Sales Co., San Francisco, Calif.
 Western—Water Heaters. W. B. Bastian Mfg. Co., Los Angeles, Calif.
 Westernaire—Fans. Western Engineering & Mfg. Co., Venice, Calif.
 Western Airout—Roof Ventilators. Western Engineering & Mfg. Co., Venice, Calif.
 Western Ridge—Roof Ventilators. Western Engineering & Mfg. Co., Venice, Calif.
 Western Rotary—Roof Ventilators. Western Engineering & Mfg. Co., Venice, Calif.
 Wetoil—Soldering Flux. Farrelloy Co., Inc., Philadelphia, Pa.
 Wet Wing—Furnace Humidifiers. Illinois Iron & Bolt Co., Freeman Heating Div., Chicago, Ill.
 Wevelite—Insulation. Insulite Div., Minnesota and Ontario Paper Co., Minneapolis, Minn.
 Whip Clamp—Clamping Device. Whipple Sheet Metal Works, Lansing, Mich.
 Whippet—Hoists. Ford Chain Block Div. American Chain & Cable Co., Inc., York, Pa.
 Whirlcone—Spray Nozzles. Water Cooling Equipment Corp., St. Louis, Mo.
 Whirljet—Water Nozzles. Spraying Systems Co., Bellwood, Ill.
 Whirlout—Ventilators. Swartwout Co., Cleveland, Ohio.
 White Top—Roofing Felt. Johns-Manville, New York, N. Y.
 Whitney-Jensen—Sheet Metal Working Machinery and Tools. Whitney Metal Tool Co., Rockford, Ill.
 Wiechert—Furnaces. St. Clair Foundry Corp., Centralia, Ill.
 Wigwam—Chimney Caps and Tops. Boston Machine Works Co., Lynn, Mass.
 Wilson—Arc Welders. Air Reduction Sales Co., New York, N. Y.
 Wilson—Furnace Brushes. Worcester Brush & Scraper Co., Worcester, Mass.
 Wind Electric—Roof Ventilators. Hirschman-Pohle Co., Inc., LeRoy, N. Y.
 Windial—Anemometers. Friez Instrument Div. Bendix Aviation Corp., Baltimore, Md.
 Windmaker—Fans. Rich Fan Mfg. Co., Phil, Houston, Tex.
 Windmaster—Exhausters. Acme Equipment Co. of Oklahoma, Inc., Muskogee, Okla.
 Wind-O-Cool—Fans. Belco Industries, Inc., St. Louis, Mo.
 Wind-O-Vent—Fans. Diehl Manufacturing Company, Somerville, N. J.
 Wind-O-Vent—Ventilator Units. Reed Unit-Fans, Inc., New Orleans, La.
 Wingfoil—Fans, Ventilators. L. J. Wing Mfg. Co., Linden, N. J.
 Winkler—Furnaces, Air Conditioning Units, Oil & Gas Burners, Stokers. Stewart-Warner Corp., U. S. Machine Div., Lebanon, Ind.
 Winter-Chaser—Furnaces, Direct Fired Heaters. Campbell Heating Co., Des Moines, Iowa.
 Winterglo—Furnaces. Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
 Winter King—Furnaces. McPherson Furnace & Supply Co., Portland, Ore.
 Winterline—Furnaces. Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.

Wisconsin—Motors. Electric Motor Corp., Racine, Wis.
 Wizard—Furnaces. Agricola Furnace Co., Inc., Gadsden, Ala.
 W.O. No. 1—Rust Preventive Chemicals. Turco Products, Inc., Los Angeles, Calif.
 Wolfe—Angle Meter, Center Finders, Circle Meter, Divisor, Protractor. Interstate Sales Co., New York, N. Y.
 Wolverine—Furnaces. Marshall Furnace Co., Marshall, Mich.
 Wondaire—Furnaces. Cox Mfg. Co., Ridgeville, Ind.
 Woolfelt—Duct Insulation. Norristown Magnesite & Asbestos Co., Norristown, Pa.
 Woolmaster—Blowers. Molloy Machine Corp., Chicago, Ill.
 Worksaver—Warehouse Trucks. Yale & Towne Mfg. Co., Philadelphia, Pa.
 Wormfeed—Stokers. Canton Stoker Corp., Canton, Ohio.
 WR—Controls. White-Rodgers Electric Co., St. Louis, Mo.
 Wyandotte—Furnaces. Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
 Wyco—Flexible Shaft Machines. Wyzenbeek & Staff, Inc., Chicago, Ill.
 Wycoflex—Grinder. Wyzenbeek & Staff, Inc., Chicago, Ill.

X

Xcel-Flux—Soldering Flux. American Products Corp., Chicago, Ill.
 Xit—Ventilators. Iona Ventilator Co., Inc., Philadelphia, Pa.
 X-Pandoseal—Transparent Waterproofing. X-Pando Corp., Long Island City, N. Y.

Y

Yager's—Flux. Alex R. Benson Co., Inc., Hudson, N. Y.
 Yale—Water Heaters. W. B. Bastian Mfg. Co., Los Angeles, Calif.
 Yankee—Damper Clips and Tips. Howes-Woods Company, Cambridge, Mass.
 Yard King—Warehouse Trucks. Yale & Towne Mfg. Co., Philadelphia, Pa.
 YarWay—Nozzles. Yarnall-Waring Co., Philadelphia, Pa.
 Yaloy—Plates and Sheets. Youngstown Sheet & Tube Co., Youngstown, Ohio.
 York-Heat—Conversion Burners, Furnaces, Water Heaters. York-Shipley, Inc., York, Pa.
 Yorkaire—Air Conditioning Units. York Corp., York, Pa.
 YouBert—Collectors and Blow Pipe Fittings. Young & Bertke Co., Cincinnati, Ohio.

Z

Zaponite—Sheet Metal Paint. Atlas Powder Co., North Chicago, Ill.
 Zeph-Air—Gas Furnace. XXth Century Heating & Ventilating Co., Akron, Ohio.
 Zephair—Fans. Hunter Fan & Ventilating Co., Inc., Memphis, Tenn.
 Zephyr—Furnaces. Premier Furnace Co., Dowagiac, Mich.
 Zephyr—Humidifiers. Maid-O'-Mist, Inc., Chicago, Ill.
 Zephyr—Saws. DoAll Company, Minneapolis, Minn.
 Zero—Cement and Refractories. Standard Fuel Engineering Co., Detroit, Mich.

Zerolite—Insulation. Johns-Manville, New York, N. Y.

Zilloy—Zinc Roofing and Sheets. New Jersey Zinc Co., New York, N. Y.

Zinaloy—Gutters, Conductor Pipe and Fittings, Ridge Roll, Roofing, Shingles and Tile. Matthiessen & Hegeler Zinc Co., LaSalle, Ill.

Zincgrip—Metal Sheets. Armco Steel Corp., Middletown, Ohio.

Zincilate—Waterproofing. Industrial Metal Protectives, Dayton, O.

Zinodine—Corrosion-preventive and paint bonding chemical. American Chemical Paint Co., Ambler, Pa.

Zip—Portable Spot Welders. Mid-States Welder Mfg. Co., Chicago, Ill.

Zonolite—Insulation. Robinson Insulation Co., Great Falls, Mont.

Zonolite Brand—Insulation. Western Metal Products Co., Minneapolis, Minn.

Z Seal—Bearings. Shafer Bearing Div., Chain Belt Co., Downers Grove, Ill.

Section of American Artisan

1955 DIRECTORY OF WARM AIR HEATING, RESIDENTIAL AIR CONDITIONING AND SHEET METAL PRODUCTS

[Part 4—ALL MANUFACTURERS' ADDRESSES]

A

- A & A Register Co., 8327 Clinton Rd., Cleveland 9, Ohio.
 ACEC Electric Corp., 40 E. 49th St., New York 17, N. Y.
 A-J Mfg. Co., 2119 Washington St., Kansas City 8, Mo.
 A-P Controls Corp., 2450 N. 32nd St., Milwaukee 45, Wis.
 Abbeon Supply Co., 179-21 Jamaica Ave., Jamaica 32, N. Y.
 Acadia Synthetic Products Div., Western Felt Wks., 4115 Ogden Ave., Chicago, Ill.
 Accurate Sheet Metal & Mfg. Works, 2336-40 Milwaukee Av., Chicago 47, Ill.
 Ace Co., 112 W. Washington St., P. O. Box 1212, Ocala, Fla.
 Acer & Whedon, Inc., Commercial St., Medina, N. Y.
 Acet-A-Tips Co., 3069 W. Madison St., Chicago 44, Ill.
 Ackermann Mfg. Co., Wheeling, W. Va.
 Acme Asbestos Covering & Flooring Co., 222 Elizabeth St., Chicago 7, Ill.
 Acme Elec. Corp., 81 Water St., Cuba, N. Y.
 Acme Electric Welder Co., 2618 Fruitland Ave., Los Angeles 58, Calif.
 Acme Equipment Co., Inc., 126 S. Clinton St., Chicago 6, Ill.
 Acme Equipment Co. of Oklahoma, Inc., Muskogee, Okla.
 Acme Furnace Fitting Co., 844 W. 59th St., Chicago 21, Ill.
 Acme Heat & Power Inc., 318 Ten Eyck St., Brooklyn 6, N. Y.
 Acme Industries, Inc., Mechanic & Ganson Sts., Jackson, Mich.
 Acme Mfg. Co., 7500 State Rd., Philadelphia 36, Pa.
 Acme Oil Burner Co., Inc., 210 Third Av. S. W., Cedar Rapids, Iowa.
 Acme Roof Jacket Co., 411 Plymouth Ave., Minneapolis, Minn.
 Acme Steel Co., 2840 Archer Ave., Chicago 8, Ill.
 Acro Tool & Die Works, 4554 Broadway, Chicago 40, Ill.
 Acro Welder Mfg. Co., 1825 W. St. Paul Ave., Milwaukee 3, Wis.
 Adams Co., The, Bridge St., Dubuque, Iowa.
 Adams Mfg. Co., 1530 St. Clair Ave., Cleveland 14, O.
 Addison Products Co., Addison, Mich.
 Adelta Mfg. Co., 21st & Ellsworth Sts., Philadelphia 46, Pa.
 Adhesives & Coatings Div., Minnesota Mining & Mfg. Co., 411 Piquette, Detroit, Mich.
 Admiral Corp., 3800 W. Cortland St., Chicago 47, Ill.
 Advance Aluminum Castings Corp., 2742 W. 36th Pl., Chicago 32, Ill.
 Advance Furnace Co., 2300 E. Douglas, Wichita 7, Kans.
 Aerofin Corp., 101 Greenway Ave., Syracuse 1, N. Y.
 Aeroil Products Co., Inc., Wesley St., South Hackensack, N. J.
 Aeroquip Corp., 300 S. East Ave., Jackson, Mich.
 Aerotec Corp., The, Greenwich, Conn.
 Aerovent Fan Co., Inc., Ash and Barton Sts., Piqua, Ohio.
 Agat-Detroit Co., 606 First National Bldg., Ann Arbor, Mich.
 Agricola Furnace Co., Inc., North 12th St., Gadsden, Ala.
 Ahlberg Bearing Co., 3012 W. 47th St., Chicago 32, Ill.
 Air Conditioning Engineering Co., 44 First St., Cambridge 41, Mass.
 Air Conditioning Equipment Co., 301 N. 7th St., Minneapolis 3, Minn.
 Air Conditioning Products Co., 2340 W. Lafayette Blvd., Detroit 16, Mich.
 Air Control Products, Inc., Coopersville, Mich.
 Air Controls, Inc., 2310 E. Superior Av., Cleveland 14, Ohio.
 Air Cooler Corp., Electri-Aire Div., 407 N. Eleventh St., St. Louis 1, Mo.
 Air Cooling Engineering Co., Box 744, Evanston, Ill.
 Air Devices, Inc., 185 Madison Ave., New York 16, N. Y.
 Aireflo Furnace Pipe Co., 750 Rickett Rd., Brighton, Mich.
 Air Equipment Co., Inc., 1713 W. Carroll Ave., Chicago 12, Ill.
 Air-Factors, Inc., 1624 S. Raymond Ave., Monrovia, Calif.
 Airfan Engineering Co., 7401 Anaheim-Telegraph Rd., Los Angeles 22, Calif.
 Air Filter Corp., 108 N. Water St., Milwaukee 2, Wis.
 Airflame, 648 McAlister Av., Waukegan, Ill.
 Airfloor of America, 3840 Delmas Terr., Culver City, Calif.
 Airtard Mfg. Co., 362 W. Erie St., Chicago 10, Ill.
 Air-Heat Corp., 4535 W. Washington Blvd., Chicago 24, Ill.
 Airjet Ventilator Co., 380 Plumosa Dr., Pasadena 10, Calif.
 Airmaster Corp., 4317 Ravenswood Av., Chicago 13, Ill.
 Air-Maze Corp., 25000 N. Miles Rd., Cleveland 28, O.
 Air-Net Appliance Co., 1550 E. 53rd St., Chicago 15, Ill.
 Airoflo Engineering Co., 3777 Cahuenga Blvd., North Hollywood, Calif.
 Air-Path Products Co., 4620 Doll Ave., Baltimore 15, Md.
 Air Purification Service, Inc., 136 Liberty St., New York, N. Y.
 Air Reduction Sales Co., 60 E. 42nd St., New York 17, N. Y.
 Air & Refrigeration Corp., 439 Madison Ave., New York 22, N. Y.
 Air-Speed Tool Co., 1502 W. Slauson Av., Los Angeles 47, Calif.
 Air Stream Filter Corp., 2100 Washington Av., St. Louis 3, Mo.
 Airtemp Div., Chrysler Corp., 1600 Webster St., Dayton 1, Ohio.
 Airtherm Mfg. Co., 706 S. Spring Ave., St. Louis 10, Mo.
 Airtron Corp., Holland, O.
 Airwasher Corp., Eaton Rapids, Mich.
 Ajax Building Bracket Co., 1551 Rydal-Mount Rd., Cleveland Heights 18, Ohio.
 Ajax Furnace Fitting Co., Div., Cincinnati Sheet Metal & Roofing Co., 216 E. Front St., Cincinnati 2, Ohio.
 Akeley-Steele Co., 225 Galena Blvd., Aurora, Ill.
 Alabama Metal Lath Co., P. O. Box 992, Birmingham, Ala.
 Aladdin Heating Corp., 1111 West Ave. 137, San Leandro, Calif.
 Albertson & Co., Inc., Sioux City 3, Iowa.
 Alco Valve Co., 865 Kingsland Av., St. Louis 5, Mo.
 Aldrich Co., Wyoming, Ill.
 Alexander Brothers Belting Co., 406 N. 3rd St., Philadelphia 23, Pa.
 Alfoll Div., Reflectal Corp., 155 E. 44th St., New York 17, N. Y.
 Allan Engineering Co., Box 1211, Dallas 1, Texas.
 Allegheny Body Co., Inc., 1633 N. Sixth St., Philadelphia, Pa.
 Allegheny Ludlum Steel Corp., 2020 Oliver Bldg., Pittsburgh 22, Pa.
 Allen, H. D., 3201 Casitas Ave., Los Angeles 39, Calif.
 Allen-Bradley Co., 1335 S. First St., Milwaukee 4, Wis.
 Allen Co., Inc., L. B. 6719 Brwn Mawr Ave., Chicago 31, Ill.
 Allen Cooler & Ventilator Inc., 704 Woodward, Rochester, Mich.
 Allen Mfg. Co., Inc., Nashville 1, Tenn.
 Allen Stoker Co., 235 S. Penn St., Allentown, Pa.
 All-Gas Equipment Co., 3235 N. 31st St., Milwaukee 10, Wis.
 Allied Federal Industries, 14 Mitchell Pl., Newark, N. J.
 Allied Porcelain, Inc., Waukegan, Ill.
 Allis-Chalmers Mfg. Co., P. O. Box 512, Milwaukee 1, Wis.
 Allis Co., Louis, 427 Stewart St., Milwaukee 7, Wis.
 Allmetal Screw Products Co., Inc., Garden City, N. Y.
 Allmetal Weatherstrip Co., 2241 N. Knox Av., Chicago 39, Ill.
 All-State Welding Alloys Co., Inc., 249-55 Ferris Ave., White Plains, N. Y.
 Alpha Metals, Inc., 36 Water St., Jersey City, N. J.
 Alpha Tool & Supply Co., P.O. Box 119, Westwood, N. J.
 Alphil Spot Welding Co., 1058 Pacific St., Brooklyn 1, N. Y.

Alisco Co., 260 S. Forge, Akron, O.
 Alysante Co. of America, 4634 De Soto St., San Diego 9, Calif.
 Alton Mfg. Co., 1112 Ross Av., Dallas 2, Texas.
 Alumatic Corp. of America, 2081 S. 36th St., Milwaukee 14, Wis.
 Aluminum Co. of America, 1501 Alcoa Bldg., Pittsburgh 19, Pa.
 Aluminum Enterprises, Inc., 17815 Cliff Ave., Detroit 12, Mich.
 Aluminum Goods Mfg. Co., Manitowoc, Wis.
 Aluminum Wool Div., Carey Electronic Engineering Co., 1880 Clifton Ave., Springfield, O.
 Amana Refrigeration, Inc., Amana, Ia.
 Amertorm Corp., Real Estate Trust Building, Philadelphia 7, Pa.
 American Actuator Corp., 40 Hudson St., New York 13, N. Y.
 American Agile Corp., P. O. Box 168, Bedford, Ohio
 American Air Filter Co., Inc., 355 Central Av., Louisville 8, Ky.
 American Blower Corp., Detroit 32, Mich.
 American Brass Co., 414 Meadow St., Waterbury 20, Conn.
 American Cabinet Hardware Corp., Rockford, Ill.
 American Chemical Paint Co., Brookside Av., Ambler, Pa.
 American Coils Co., Inc., 360 Thomas St., Newark 5, N. J.
 American Control Co., 405 E. Pine Ave., Compton, Calif.
 American Coolair Corp., 3604 Mayflower St., P. O. Box 2300, Jacksonville 3, Fla.
 American Cooling Tower Co., 2710 McGee St., Kansas City, Mo.
 American Cyanamid Co., 30 Rockefeller Plaza, New York 20, N. Y.
 American District Telegraph Co., 155 Sixth Ave., New York, N. Y.
 American Engineering Co., 2446 Aramingo Av., Philadelphia 25, Pa.
 American Flange & Mfg. Co., Inc., 30 Rockefeller Plaza, New York 20, N. Y.
 American Fluresit Co., Inc., 4011 Red Bank Rd., Cincinnati 27, Ohio.
 American Foundry & Furnace Co., 10th & Washington Sts., Bloomington, Ill.
 American Furnace Co., 1300 Hampton Av., St. Louis 10, Mo.
 American Gas Burner, Inc., 418 S. Pennsylvania St., Indianapolis 4, Ind.
 American Hair & Felt Co., 222 N. Bank Dr., Chicago 54, Ill.
 American Hard Rubber Co., 11 Mercer St., New York 13, N. Y.
 American Ideal-Aire Corp., P. O. Box 470, Mineola, N. Y.
 American Instrument Co., Inc., 8010 Georgia Av., Silver Spring, Md.
 American Insulator Corp., New Freedom, Pa.
 American-Marietta Co., 101 E. Ontario St., Chicago 11, Ill.
 American Metal Hose Branch, American Brass Co., 698 S. Main St., Waterbury 20, Conn.
 American Metal Products, 2911 Compton Ave., Los Angeles 11, Calif.
 American Mohawk Co., Inc., 580 Hudson St., New York 14, N. Y.
 American MonoRail Co., 13133 Athens Ave., Cleveland 7, Ohio.
 American Nickeloid Co., 1505 Second St., Peru, Ill.
 American Panel, Inc., 9 W. Park Way, Pittsburgh 12, Pa.
 American Products Corp., 422 S. Dearborn St., Chicago 5, Ill.
 American Pulley Co., 4200 Wissahickon Av., Philadelphia 29, Pa.
 American Pullmax Co., Inc., 2455 N. Sheffield, Chicago, Ill.
 American Screw Co., Willimantic, Conn.
 American Silver Co., Inc., 36-07 Prince St., Flushing, N. Y.
 American Sisalkraft Corp., Attleboro, Mass.
 American Solder & Flux Co., 19th & Willard Sts., Philadelphia 40, Pa.
 American Steel Band Co., P. O. Box 565, Pittsburgh 30, Pa.
 American Steel & Wire Div., U. S. Steel Corp., Rockefeller Bldg., Cleveland, Ohio.
 American Warming & Ventilating Co., 1017 Summit St., Toledo 4 Ohio.
 American Welding & Mfg. Co., Building Products Div., Warren, O.
 Ammerman Co., C. L., 104 N. 2nd St., Minneapolis 1, Minn.
 Ampion Corp., 4-88 Forty-Seventh Av., Long Island City 1, N. Y.
 Ampower Products Co., 5737 W. 87th St., Oak Lawn, Ill.
 Anchor Div. Stratton & Terstegge Co., Inc., P. O. Box 311, New Albany, Ind.
 Anchor Metal Co., 244 Boerum St., Brooklyn 6, N. Y.
 Andrews Heater Co., 1750 W. Jefferson Blvd., Los Angeles 18, Calif.
 Anemostat Corp. of America, 10 E. 39th St., New York 16, N. Y.
 Angier Corp., Framingham, Mass.
 Annis Air Filter Div., Royal Heaters, Inc., 1024 Westminster Ave., Alhambra, Calif.
 Ansul Chemical Co., Refrigeration Div., Marinette, Wis.
 Anthony Co., Streator, Ill.
 Anti-Friction Bearings Co., 2020 S. Figueroa St., Los Angeles 7, Calif.

Apollo Metal Works, 66th Pl. & S. Oak Park Av., Clearing Sta., Chicago 38, Ill.
 Appleton Supply Co., Inc., P. O. Box 319, Appleton, Wis.
 Applied Mechanics Co., 167 Oliver St., Boston 10, Mass.
 Aqua-Air Corp., 1040 Hempstead Tpke., Elmont, L. I., N. Y.
 Aqua-Therm, Inc., 39 N. Torrence St., Dayton, O.
 Aquatrol Laboratories, Inc., Clifton, N. J.
 Arco Co., The, 7301 Bessemer Ave., Cleveland 27, O.
 Arcos Corp., 1500 S. 30th St., Philadelphia 43, Pa.
 Arcweld Mfg. Co., Inc., 3469 Third Av., W., Seattle 99, Wash.
 Arex Co., 612 N. Michigan Ave., Chicago 11, Ill.
 Arizona Maintenance Co., 1920 Miracle Mile, Tucson, Ariz.
 Arlington Electric Co., 5530 Easton Av., St. Louis 12, Mo.
 Armco Steel Corp., 703 Curtis St., Middletown, Ohio.
 Armor Electric Co., 1020 Holland St., Erie, Pa.
 Armstrong Co., 1001 E. 103rd St., Chicago 28, Ill.
 Armstrong Cork Co., 4404 Concord St., Lancaster, Pa.
 Armstrong Furnace Co., 851 W. Third Ave., Columbus 8, O.
 Arro Expansion Bolt Co., N. Boone Ave., Marion, O.
 Arrow Foundry Co., East Albion St., Freeport, Ill.
 Arrow-Hart & Hegeman Electric Co., 103 Hawthorne St., Hartford 6, Conn.
 Art Valve Co., 4662 N. Lincoln Ave., Chicago 25, Ill.
 Asbestos Asphalt Insulation, Inc., 2100 W. Fullerton Ave., Chicago 47, Ill.
 Ashburn Supply Co., 8648 Warner Dr., Culver City, Calif.
 Aston Products, Inc., 22804 Dequindre St., Hazel Park, Mich.
 Atcheson Glass Co., T. J., 920 Main St., Buffalo 2, N. Y.
 Atchison Specialty Mfg. Co., 1620 Pacific Ave., Atchison, Kans.
 Atkins Saw Div., Borg-Warner Corp., 402 S. Illinois St., Indianapolis 9, Ind.
 Atkomatic Valve Co., 545 W. Abbott St., Indianapolis, Ind.
 Atlas Mfg. Co., Eustis and Robbins, St. Paul 14, Minn.
 Atlas Powder Co., North Chicago, Ill.
 Atlas Valve Co., 282 South St., Newark 5, N. J.
 Auburn Burner Co., Lock Box 269, Auburn, Ind.
 Auburn Foundry, Inc., Stoker Div., Lock Box 471, Auburn, Ind.
 Auburn Spark Plug Co., Inc., Auburn, N. Y.
 Auer Register Co., 6600 Clement Ave., Cleveland 5, Ohio.
 Au-Temp-Co Corp., 657 Broadway, New York 12, N. Y.
 Auto-Flo Corp., 14590 Schaefer, Detroit 27, Mich.
 Autogas Co., 25th & Congress, Bellwood, Ill.
 Automatic Burner Corp., 1823 Carroll Av., Chicago 12, Ill.
 Automatic Control Co., 995 University Ave., St. Paul 4, Minn.
 Automatic Devices Co., Inc., Weather Controls Div., 714 Hillgrove Av., Western Springs, Ill.
 Automatic Electric Mfg. Co., 10 State St., Mankato, Minn.
 Automatic Firing Corp., 4417 Oleatha Ave., St. Louis 16, Mo.
 Automatic Gas Equipment Co., 301 Brushton Av., Pittsburgh 21, Pa.
 Automatic Humidifier Co., 19th & Main Sts., Cedar Falls, Iowa.
 Automatic Switch Co., 391 Lakeside Ave., Orange, N. J.
 Automatic Temperature Control Co., Inc., 5212 Pulaski Av., Philadelphia 44, Pa.
 Autorsid, Inc., 3535 Fillmore St., Chicago 24, Ill.
 Auto-Therm Mfg. Co., 19003 John R., Detroit 3, Mich.
 Avco Mfg. Corp., Crosley and Bendix Home Appliances, 1329 Arlington, Cincinnati 25, O.
 Ayres, Inc., 1017 Rosene St., Houston 1, Tex.

B

B/W Controller Corp., 2200 E. Maple Av., Birmingham, Mich.
 Babbitt, Inc., 258 Canal St., New York 13, N. Y.
 Babbitt Chemical Specialties Co., 36 Prospect St., New Bedford, Mass.
 Babcock & Wilcox Co., Refractories Div., 161 E. 42nd St., New York 17, N. Y.
 Bacharach Industrial Instrument Co., 7000 Bennett St., Pittsburgh 8, Pa.
 Bailey Co., Chas. M., 667 Folsom St., San Francisco 7, Calif.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
 Baker Bros. Inc., Post & Harleau Sts., Toledo 10, Ohio.
 Baker Furnace & Cleaner Mfg. Co., 2810 Midwood Av., Toledo 6, Ohio.
 Bal-Air, Inc., 1210 McGavock St., Nashville, Tenn.
 Baldor Electric Co., 4358 Duncan Av., St. Louis 10, Mo.
 Baldwin-Hill Co., 397 Breunig Ave., Trenton 2, N. J.
 Ballastran Corp., 1701 N. Calhoun St., Ft. Wayne 7, Ind.
 Balloffet Nozzle Co., Inc., 6825 Adams St., Guttenberg, N. J.
 Baltimore Aircoil Co., Inc., 2615-2635 Mathews St., Baltimore 18, Md.
 Baltimore Porcelain Steel Corp., P. O. Box 928 AA, Baltimore 3, Md.
 Banner Burner Co., 227-E Indianola Ave., Youngstown 7, Ohio.
 Banner Products Co., 6804 N. 43rd St., Milwaukee 9, Wis.

Banner Repair Parts Co., 103 E. Indianola Av., Youngstown 7, Ohio.

Barber-Colman Co., 1101 Rock St., Rockford, Ill.

Barber Gas Burner Co., 3704 Superior Av., Cleveland 14, Ohio.

Bar-Brook Mfg. Co., Inc., 6135 Linwood Av., Shreveport, La.

Barcafer Mfg. Co., Salina, Kans.

Barclay, Inc., Robert, 1234 W. Fulton St., Chicago, Ill.

Bard Mfg. Co., Evansport Road, Bryan, Ohio.

Barkow Mfg. Co., Inc., Aug. G., 2230 S. 43rd St., Milwaukee 15, Wis.

Barksdale Valves, 5125 Alcoa Ave., Los Angeles 58, Calif.

Barnard Co., Geo. A., 74 Prescott St., Worcester, Mass.

Barneby-Cheney Co., Pur Air Div., Cassidy at 8th Ave., Columbus 19, O.

Barnes Metal Products Co., 4425 W. 16th St., Chicago 23, Ill.

Barnhardt Mfg. Co., P. O. Box 2176, Charlotte 1, N. C.

Barreled Sunlight Paint Co., 35 Dudley St., Providence 1, R. I.

Barrett Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.

Barry Blower Co., 3100 California St., N. E., Minneapolis, Minn.

Barry Corp., 1000 Pleasant St., Watertown, Mass.

Barth Mfg. Co., Milldale, Conn.

Bartlett Mfg. Co., 3003 E. Grand Blvd., Detroit 2, Mich.

Barton Co., 2645 University Ave., St. Paul 14, Minn.

Barwick Mfg. Corp., 317 E. 18th, Wichita 5, Kans.

Bastian-Blessing Co., 4201 W. Petersen Av., Chicago 30, Ill.

Bastian Mfg. Co., W. B., 2117 Violet St., Los Angeles 21, Calif.

Bastian-Morley Co., Inc., 208 Truesdale Ave., La Porte, Ind.

Bath Co., Cyril, 32272 Aurora Rd., Solon, O.

Baum Heating Co., Inc., J. H., 6400 Southern Blvd., Youngstown, Ohio.

Bayley Blower Co., 1817 S. 66th St., Milwaukee 14, Wis.

Bayonne Steel Products Co., Clinton & Jelliff Aves., Newark 8, N. J.

Beacon-Morris Corp., 60 Brainerd Rd., Allston, Boston 34, Mass.

Bead Chain Mfg. Co., 105 Mountain Grove St., Bridgeport 3, Conn.

Beaure Products Co., 1235 S. Monroe Ave., Green Bay, Wis.

Bear Mfg. Co., Industrial Div., 2030 Fifth Av., Rock Island, Ill.

Beatty Machine & Mfg. Co., 932 150th St., Hammond, Ind.

Beck Engineering Combustion Company, 2100 Cole St., St. Louis 6, Mo.

Beck Mfg. Co., 315-317 W. Main St., New Albany, Ind.

Beckett & Co., Thomas, 2521 Willowbrook Rd., P. O. 7354, Dallas 9, Texas.

Beckett Corp., R. W., 38250 Cleveland Rd., (Route U. S. 20), Elyria, Ohio.

Beckley Perforating Co., 305 North Av., Garwood, N. J.

Belco Industries, Inc., 3830 Olive St., St. Louis 8, Mo.

Belden Machine Co., 1108 Whalley Av., New Haven 15, Conn.

Bell Engineering & Supply Co., Three Rivers, Mich.

Bellows Co., 222 W. Market St., Akron 9, Ohio.

Belmetals Mfg. Co., 1300 Old County Rd., Belmont, Calif.

Belmont Smelting & Refining Works, Inc., 330 Belmont Av., Brooklyn 7, N. Y.

Benchmark Mfg. Co., 1835 W. Rosecrans, Gardena, Calif.

Benjamin Air Rifle Co., 1527 S. 8th St., St. Louis 4, Mo.

Benner-Nawman, Inc., 3421 Hollis, Oakland, Calif.

Benson Co., Inc., Alex R., 1040 S. Bay Rd., Hudson, N. Y.

Berger Bros. Co., 229-237 Arch St., Philadelphia 6, Pa.

Berger Furnace Corp., 4th & Main St., Belle Vernon, Pa.

Berger Mfg. Div. of Republic Steel Corp., 1038 Bleden Ave., N. E., Canton 3, Ohio.

Bergstrom Mfg. Corp., Neenah, Wis.

Berkroy Products Co., 2516 N. Ontario St., Burbank, Calif.

Bern's Mfg. Co., 3050 N. Rockwell, Chicago 18, Ill.

Bernz Co., Otto, 280 Lyell Ave., Rochester 6, N. Y.

Berridge Shear Co., Jefferson & St. Joseph Sts., Sturgis, Mich.

Bertram Co., Harvey P., 1008 W. 9th St., Cincinnati, Ohio.

Bertsch & Co., Church St., Cambridge City, Ind.

Besser Metal Products Corp., 754 Clement Ave., Charlotte, N. C.

Bethlehem Foundry & Machine Co., 225 W. Second St., Bethlehem, Pa.

Bethlehem Steel Co., 701 E. Third St., Bethlehem, Pa.

Bett-Marr Mfg. Co., Hopkins, Minn.

Betz Corp., 445 State St., Hammond, Ind.

Beverly Shear Mfg. Co., The, 3020 W. 111th St., Chicago 43, Ill.

Beyer Metal Products Co., Rosamond, Calif.

Bica Co., 903 N. State St., Girard, Ohio.

Bieler & Sons, Inc., L., 55-42 41st St., Long Island City, N. Y.

Biersach & Niedermeyer Co., 1937 N. Hubbard St., Milwaukee 12, Wis.

Big Joe Mfg. Co., 900 W. Jackson Blvd., Chicago 7, Ill.

Billmyre Blower Div., Lamson Corp., Syracuse, N. Y.

Binks Mfg. Co., 3114 Carroll Av., Chicago 12, Ill.

Bird-Archer, 4337 N. America St., Philadelphia, Pa.

Bird & Son, Inc., East Walpole, Mass.

Birdsell Mfg. Co., 750 San Antonio Rd., Palo Alto, Calif.

Birks Mfg. Co., 809 Hanover Rd., Meriden, Conn.

Bishop & Babcock Mfg. Co., 4901 Hamilton Av., Cleveland 14, Ohio.

Bishop Co., R. H., 14 E. Washington St., Champaign, Ill.

Black & Decker Mfg. Co., 682 Pennsylvania Ave., Towson 4, Md.

Black Diamond Stoker Co., E. 4th & Plymouth, Sioux City, Iowa.

Black Mfg. Co., 201 Second St., Harrison, N. J.

Black, Sivalls & Bryson, Inc., 7500 E. 12th St., Kansas City 26, Mo.

Blissfield Mfg. Co., Blissfield, Mich.

Blower Application Co., 3165 N. 30th St., Milwaukee 16, Wis.

Blue-Ray Gas Burner Co., 1305 E. Vernor Highway, Detroit 7, Mich.

Blue Ridge Glass Corp., Kingsport, Tenn.

Blue Ridge Talc Co., Inc., Henry, Va.

Bock Corp., 110 S. Dickinson St., Madison 3, Wis.

Bodine Electric Co., 2254 W. Ohio St., Chicago 12, Ill.

Bohn Aluminum & Brass Corp., 1400 Lafayette Bldg., Detroit, Mich.

Bonair Products, Inc., 5010 Warrington Ave., Philadelphia 4, Pa.

Borg-Warner Corp., Hydraline Products Div., 18538 Mack Ave., Detroit 36, Mich.

Borm Mfg. Co., 23 N. Union St., Elgin, Ill.

Bossert Div., Rockwell Spring and Axle Co., Utica 1, N. Y.

Bostitch, 1007 Mechanic St., Westerly, R. I.

Boston Machine Works Co., 7 Willow St., Lynn, Mass.

Botfield Refractories Co., Swanson & Clymer Sts., Philadelphia 47, Pa.

Bovee Furnace Works, 180 W. Eighth St., Waterloo, Iowa.

Bowen Water Heater Div., Handling Equipment Mfg. Corp., Wixom, Mich.

Bowly Air Devices Co., 300 W. Indianapolis, Wichita, Kans.

Bowser, Inc., Incineration Div., Cairo, Ill.

Boytown Auto Body Works, Inc., Boytown, Pa.

Braden Mfg. Co., Inc., 431 N. 14th St., Terre Haute, Ind.

Brandes Co., 2046 Winnebago St., Madison 4, Wis.

Brasco Mfg. Co., 152nd & Commercial Av., Harvey, Ill.

Brass & Copper Import, Inc., 220 Broadway, New York 38, N. Y.

Brauer Supply Co., A. G., 2100 Washington Ave., St. Louis 3, Mo.

Breeze Burners, Inc., P. O. Box 4158, Coronado Station, Santa Fe, N. Mex.

Breeze Corps., Inc., 43 S. 6th St., Newark 7, N. J.

Breidert, G. C., Co., P. O. Box 1190, San Fernando, Calif.

Bremil Mfg. Co., 1020 Holland St., Erie, Pa.

Breuer Electric Mfg. Co., 5100 N. Ravenswood Ave., Chicago 40, Ill.

Bridgeport Brass Co., 30 Grand St., Bridgeport 2, Conn.

Bristol Co., P.O. Box 1790, Waterbury 20, Conn.

Broan Mfg. Co., Inc., 1669 N. Water St., Milwaukee 2, Wis.

Brooks Co., Inc., B. D., 310 Atlantic Ave., Boston 10, Mass.

Brookside Products Co., Inc., McCordsville, Ind.

Brown-Brockmeyer Co., Inc., 1098 Smithville Rd., Dayton 1, Ohio.

Brown Fintube Co., The, Elyria, Ohio.

Brown Products Co., 97-12 Metropolitan Ave., Forest Hills, N. Y.

Browning Mfg. Co., Inc., Central Ave., Main & Chester Sts., Maysville, Ky.

Brucker, Inc., M., 820 N. Wolcott Ave., Chicago, Ill.

Burlin Co., 2939 Columbia Ave., Indianapolis, Ind.

Brumme Mfg. Co., 1240 E. Empire St., R. R. 1, Bloomington, Ill.

Brundage Co., 500 N. Park St., Kalamazoo 11, Mich.

Brunner Mfg. Co., 1821 Broad St., Utica 1, N. Y.

Brushes & Brooms Co., 75 Warren St., New York, N. Y.

Bryan Steam Corp., P. O. Box 337, Peru, Ind.

Bryant Heater Div., Affiliated Gas Equipment, Inc., 17825 St. Clair Ave., Cleveland 10, Ohio.

Buchanan Electric Products Corp., 226 Route 22, Hillside, N. J.

Buckeye Furnace Pipe Co., Columbus 8, Ohio.

Buckeye Water Heater Co., 6901 Quincy Ave., Cleveland 4, Ohio.

Budco Inc., 13415 Gratiot Av., Detroit 5, Mich.

Buensod-Stacey, Inc., 60 E. 42nd St., New York 17, N. Y.

Buffalo Forge Co., 497 Broadway, Buffalo, N. Y.

Bundy Tubing Co., 8109 E. Jefferson Ave., Detroit 14, Mich.

Burden Co., Alan E., 3352 Motor Ave., Los Angeles 34, Calif.

Burdett Mfg. Co., 3433 W. Madison, Chicago, Ill.

Burgess-Norton Mfg. Co., 773 Peyton St., Geneva, Ill.

Burgess Thomas Co., P.O. Box 287, Bloomfield, N. J.

Burke Engineering Co., 1204 W. Washington Blvd., Los Angeles 7, Calif.

Burnham Corp., Irvington, N. Y.
 Burnley Battery & Mfg. Co., 103 Clay St., North East, Pa.
 Burnrite Valve Mfg. Corp., 175 W. 1st St., Mt. Vernon, N. Y.
 Burns Machinery Co., F. W., 1730 W. North Av., Milwaukee 5, Wis.
 Burt Mfg. Co., 38 E. South St., Akron 11, Ohio.
 Bush Mfg. Co., 179 South St., West Hartford 10, Conn.
 Byers Co., A. M., Clark Bldg., Pittsburgh 22, Pa.

C

C. & H. Air Conditioning Fan Co., Inc., 1603 DeKalb Ave., N. E., Atlanta 6, Ga.
 Cabot, Inc., Samuel, 141 Milk St., Boston 9, Mass.
 Cady Co., Sub. General Fittings Co., 123 Georgia Av., Providence 3, R. I.
 Calbar Paint & Varnish Co., 2612 N. Martha St., Philadelphia 25, Pa.
 Calcinator Corp., 28th & Water, Bay City, Mich.
 Calculator Specialties Co., 122 S. Michigan Ave., Chicago 3, Ill.
 Callahan Can Machine Co., Inc., 80 Richards St., Brooklyn, N. Y.
 Calorol Burner Corp., 830 Windsor St., Hartford 3, Conn.
 Cambridge Filter Corp., 738 Erie Blvd., E., Syracuse 3, N. Y.
 Camloc Fastener Corp., 22 Spring Valley Rd., Paramus, N. J.
 Campbell Co., E. K., 1809 Manchester Ave., Kansas City 26, Mo.
 Campbell Heating Co., 3121 Dean Av., Des Moines 17, Iowa.
 Campbell Machine Div., American Chain & Cable Co., Inc., 929 Connecticut Ave., Bridgeport 2, Conn.
 Campbell Stainless Products Co., Washington, Pa.
 Camco Div., Chicago Molded Products Corp., 2717 N. Normandy Ave., Chicago 35, Ill.
 Cam-StaT Inc., Div. Paul Henry Co., 11833 W. Olympic Blvd., Los Angeles 64, Calif.
 Cannelton Sewer Pipe Co., Radiantile Div., Fourth & Washington Sts., Cannelton, Ind.
 Canton Stoker Corp., 507 Andrews Pl., S. W., Canton 1, Ohio.
 Carajon Chemical Co., Inc., 428 W. Main St., Fremont, Mich.
 Carbide & Carbon Chemicals Co., Div. Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Carboline Co., 331 Thornton Ave., St. Louis 19, Mo.
 Carey Mfg. Co., Philip, Cincinnati 15, Ohio.
 Cargocaire Engineering Corp., 15 Park Row, New York 38, N. Y.
 Carlin Co., The, River Rd., Wethersfield, Conn.
 Carlon Products, 10225 Meech, Cleveland, Ohio.
 Carnes Corp., S. Main St., Verona, Wis.
 Carolina Aniline & Extract Co., Inc., P. O. 2386, Charlotte, N. C.
 Carolina Blower Co., Inc., 430 Morehead Ave., Greensboro, N. C.
 Carpenter Heating & Stoker Co., 2135 St. Clair Ave., Cleveland 14, Ohio.
 Carrier Corp., 300 S. Geddes St., Syracuse 1, N. Y.
 Carter Paint Co., 310 N. Main St., Liberty, Ind.
 Cartier & Sons Co., M. N., 275 Canal St., Providence 3, R. I.
 Carvell Heat Equipment Co., 1217 Temple St., Los Angeles 26, Calif.
 Cary Mfg. Co., Waupaca, Wis.
 Cash Co., A. W., P. O. Box 551, Decatur, Ill.
 Cauhorn Distributing Co., 9999 Broadstreet, Detroit 4, Mich.
 Ceco Steel Products Corp., 5601 W. 26th St., Chicago, Ill.
 Celco Corp., 110 E. 42nd St., New York 17, N. Y.
 Celotex Corp., 120 S. LaSalle St., Chicago 3, Ill.
 Cemenstone Corp., Neville Island, Pittsburgh 25, Pa.
 Central Furnace & Stove Repair Co., 3937 Olive St., St. Louis 8, Mo.
 Central Rubber & Steel Corp., Findlay, Ohio.
 Central States Mfg. Co., Inc., 1200 S. Summit, Arkansas City, Kans.
 Central West Machinery Co., 335 S. Western, Chicago, Ill.
 Century Electric Co., 1806 Pine St., St. Louis 3, Mo.
 Century Engineering Corp., 401 Third St., S. E., Cedar Rapids, Iowa.
 Century Fan & Ventilator Co., 43 Cedar St., Stamford, Conn.
 Ceramic Products Mfg. Co., 139 E. Garfield Av., Milwaukee 12, Wis.
 Certain-teed Products Corp., 120 E. Lancaster Ave., Ardmore, Pa.
 Certified Furnace Corp., P. O. Box 1059, Trenton 8, N. J.
 Chain Belt Co., 4618 W. Greenfield Ave., Milwaukee 1, Wis.
 Chalmers Oil Burner Co., 312 Lumber Exchange Bldg., Minneapolis 1, Minn.
 Chamberlin Co. of America, 1254 Labrosse, Detroit 32, Mich.
 Champion Blower & Forge Co., Harrisburg Av., & Charlotte St., Lancaster, Pa.
 Champion Bronze Powder & Paint Co., 2522 W. Van Buren St., Chicago, Ill.
 Champion Furnace Pipe Co., 211-215 Eaton St., Peoria 3, Ill.
 Champion Implement Corp., 175 E. 87th St., New York 28, N. Y.
 Champion Products Co., 1197 Terrace St., Muskegon, Mich.
 Char-Gale Mfg. Co., R. 2, Anoka, Minn.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
 Chase Mfg. Co., 5008 W. Jefferson Blvd., Los Angeles 6, Calif.
 Chase Products, Inc., 1816 St. Charles Rd., Maywood, Ill.
 Chattanooga Royal Co., First and Delmar Sts., Chattanooga 6, Tenn.
 Cheesman-Elliott Co., Inc., 639 Kent Av., Brooklyn 11, N. Y.
 Chelsea Fan & Blower Co., Inc., 639 South Ave., Plainfield, N. J.
 Chemalloy Electronics Inc., Gillespie Airport, Santee, Calif.
 Chemical Solvent Co., 3005 N. 16th St., Birmingham, Ala.
 Chemold Co., 2000 Colorado Blvd., Santa Monica, Calif.
 Chemurgic Process Corp., 55 W. 42nd St., New York, N. Y.
 Cheney Flashing Co., 623 Prospect St., Trenton 5, N. J.
 Chester Hoist Div., National Screw & Mfg. Co., Lisbon, O.
 Chevrolet Motor Div., General Motors Corp., Detroit 2, Mich.
 Chicago Automatic Stoker Co., Inc., 14 N. Clinton St., Chicago 6, Ill.
 Chicago Belting Co., 113 N. Green St., Chicago 7, Ill.
 Chicago Blower Corp., 9867 Pacific Ave., Franklin Park, Ill.
 Chicago Die Casting Co., 2510-14 W. Monroe St., Chicago 12, Ill.
 Chicago Expansion Bolt Co., 1338 W. Concord Pl., Chicago 22, Ill.
 Chicago Fire Brick Co., 1467 N. Elston Av., Chicago 22, Ill.
 Chicago Furnace Supply Co., 1278 Clybourn Av., Chicago 10, Ill.
 Chicago Metal Mfg. Co., 3724 S. Rockwell St., Chicago 32, Ill.
 Chicago Perforating Co., 2445 W. 24th Pl., Chicago 8, Ill.
 Chicago Pneumatic Tool Co., 6 E. 44th St., New York 17, N. Y.
 Chicago Rawhide Mfg. Co., 1312 Elston Av., Chicago 22, Ill.
 Chicago Rivet & Machine Co., 9600 W. Jackson Blvd., Bellwood, Ill.
 Chicago Smelting & Refining Corp., 3701 S. Kedzie Ave., Chicago 32, Ill.
 Chicago Steel Furnace Co., 9326 S. Anthony Ave., Chicago 17, Ill.
 Chicago Tramrail Co., 4000 W. Washington Blvd., Chicago 24, Ill.
 Chicopee Mills, Inc., 47 Worth St., New York 13, N. Y.
 Chimney Sales Corp., 1317 F St., N. W., Washington 4, D. C.
 Chisholm-Moore Hoist Div., Columbus McKinnon Chain Corp., Fremont Av., Tonawanda, N. Y.
 Cincinnati Elbow Co., 4730 Madison Rd., Cincinnati 27, O.
 Cincinnati Shaper Co., Hopple, Garrard & Elam, Cincinnati 25, Ohio.
 Cincinnati Stamping & Furnace Co., 28 W. McMicken Ave., Cincinnati 10, Ohio.
 Girklaire Products Div., Folsom Co., Inc., 3104 Oak Lane, Dallas 10, Texas.
 City Chemical Corp., 132 W. 22nd St., New York 11, N. Y.
 Clarage Fan Co., North & Porter Sts., Kalamazoo 16, Mich.
 Clark Bros. Bolt Co., Milldale, Conn.
 Clark Controller Co., 1146 E. 152 St., Cleveland 10, Ohio.
 Clark-Hopkins Equipment Corp., 1124 Spring Garden St., Philadelphia 23, Pa.
 Clark Jr., Electric Co., James, 600 E. Bergman St., Louisville 3, Ky.
 Clark Co., Robert H., 9330 Santa Monica Blvd., Beverly Hills, Calif.
 Clark Stek-O Corp., 1631 Dewey Av., Rochester 15, N. Y.
 Clay Equipment Corp., Cedar Falls, Iowa.
 Clayton & Lambert Mfg. Co., Louisville Div., 1707 Dixie Hwy., Louisville 10, Ky., and Middletown, Ohio.
 Clearing Machine Corp., 6499 W. 65th St., Chicago 38, Ill.
 Clemson Bros., Inc., Middletown, N. Y.
 Cleveland Crane & Engineering Co., 5866 E. 283rd St., Wickliffe, Ohio.
 Cleveland Heater Co., 2310 Superior Av., N. E., Cleveland 14, Ohio.
 Cleveland Humidifier Co., 7802 Wade Park Av., Cleveland 3, Ohio.
 Cleveland Punch & Shear Works Co., E. 40th & St. Clair Av., Cleveland 14, Ohio.
 Climatemaker Heat Loss Calculator Co., Box 378, Bloomington, Ill.
 Climax Machinery Co., 301 S. LaSalle St., Indianapolis 6, Ind.
 Clime-Matic Corp., Connecticut & Richards Ave., South Norwalk, Conn.
 Clinton Metallic Paint Co., Clinton, N. Y.
 Coal-O-Matic Co., Trucksville (Luzerne County), Pa.
 Coast Insulating Products, 2316 San Fernando Rd., Los Angeles 65, Calif.
 Coated Coil Corp., 539 W. 30th St., New York 1, N. Y.
 Cobra Metal Hose Div., DK Mfg. Co., 4640 W. 54th St., Chicago, Ill.

Cole Hot Blast Mfg. Co., 3817 S. Racine Av., Chicago 9, Ill.
 Coleman Co., Inc., St. Francis & Second St., Wichita 1, Kans.
 Cole-Sewell Engineering Co., 2288 University Av., St. Paul 4, Minn.
 Columbia Burner Co., 729 Ewing St., Toledo 7, Ohio.
 Columbia-Geneva Steel, Div. United States Steel Corp., Russ Bldg., 235 Montgomery St., San Francisco 6, Calif.
 Columbia Specialty Co., Inc., 4925 Bradley Blvd., Chevy Chase 15, Md.
 Columbus Heating & Ventilating Co., 182 N. Yale Av., Columbus 16, Ohio.
 Combustion Control Div., Electronics Corp. of America, 718 Beacon St., Boston 16, Mass.
 Combustion Equipment Co., Box 734 B, Silvis, Ill.
 Comfort Products Corp., 1705 S. Lamar, Dallas 2, Texas.
 Commercialaire, Inc., 300 Pacific St., Brooklyn 1, N. Y.
 Commercial Filters Corp., 2 Main St., Melrose 76, Mass.
 Commercial Plastics Co., 2226 Wabansia Ave., Chicago 47, Ill.
 Commercial Shearing & Stamping Co., P. O. Box 719, Youngstown 1, Ohio.
 Commonwealth Brass Corp., 5781-5835 Commonwealth Av., Detroit 8, Mich.
 Commonwealth Co., 2127 W. Commonwealth Av., Alhambra, Calif.
 Compton Shear Co., W. H., 314 Camden St., Newark 3, N. J.
 Conco Engineering Works, Heating Division, Mendota, Ill.
 Condensation Engineering Corp., 3511 W. Potomac Ave., Chicago 51, Ill.
 Condenser Service & Engineering Co., Inc., 150 Observer Highway, Hoboken, N. J.
 Congress Drives, Div. Tann Corp., 3750 E. Outer Dr., Detroit 34, Mich.
 Conklin Brass & Copper Co., Inc., T. E., 54-60 Lafayette St., New York 13, N. Y.
 Connecticut State Furnace Co., The, 340 Kossuth St., Bridgeport, Conn.
 Connelly Construction Co., Second & Luzerne Sts., Philadelphia 40, Pa.
 Connor Engineering Corp., Shelter Rock Lane, Danbury, Conn.
 Connors & Davis Sales Corp., Circuit Ave., West Springfield, Mass.
 Consolidated Industries, Inc., Lafayette, Ind.
 Constad Laboratories, 146 W. 29th St., New York 1, N. Y.
 Continental Air Filters, Inc., P. O. Box 1647, Louisville 1, Ky.
 Continental-Diamond Fibre Co., Newark, Del.
 Continental Instrument Co., 1530 St. Clair Ave., Cleveland 14, Ohio.
 Continental Products Co., 1150 E. 222nd St., Euclid 17, Ohio.
 Continental Screw Co., Mt. Pleasant St., New Bedford, Mass.
 Continental Steel Corp., 1108 S. Main St., Kokomo, Ind.
 Continental Water Heater Co., 1801 Pasadena Av., Los Angeles 31, Calif.
 Controlair Mfg. Co., 1932 S. Compton Av., Los Angeles 11, Calif.
 Control Engineering Corp., 560 Providence Highway, Norwood, Mass.
 Coogan Co., Inc., Frank J., 6319 Broad St., Pittsburgh 6, Pa.
 Cook Co., Loren, 664 Front St., Berea, Ohio.
 Coolerator Co., New Garrick Bldg., Duluth, Minn.
 Cool-Ette, Inc., 20080 Jas. Couzens Highway, Detroit, Mich.
 Cooper Co., Clark, Palmyra, N. J.
 Cooper Stoker Co., 117 Fourth St., Pittsfield, Mass.
 Coopers Creek Chemical Corp., West Conshohocken, Pa.
 Copeland Refrigeration Corp., Sidney, Ohio.
 Copperweld Steel Co., Box 1000, Glassport, Pa.
 Coppus Engineering Corp., 344 Park Ave., Worcester 2, Mass.
 Corbin Div., P & F, American Hardware Corp., 102 Washington St., New Britain, Conn.
 Corbman Bros., Inc., 25th & York St., Philadelphia, Pa.
 Cordo Chemical Corp., 34 Smith St., Norwalk, Conn.
 Cork Insulation Co., Inc., 730 5th Av., New York, N. Y.
 Corlett-Turner Co., 1001 S. Kostner Ave., Chicago 24, Ill.
 Corraire Heater Corp., 1422 Euclid Ave., Cleveland 15, Ohio.
 Corrosite Corp., 64 S. 6 St., Brooklyn 11, N. Y.
 Cotta Transmission Co., 2340 Eleventh St., Rockford, Ill.
 Coughlan Co., G. N., West Orange, N. J.
 Coward-Eastman Co., 43 South 23rd, Philadelphia, Pa.
 Cox Mfg. Co., Ridgeville, Ind.
 Cramer Co., Inc., The R. W., Box 36, Centerbrook, Conn.
 Cramer Mfg. Co., 5110 Westfield Ave., N. W., Canton, Ohio.
 Crane Co., 836 S. Michigan Av., Chicago 5, Ill.
 Crescent Tool Co., 230 Harrison St., Jamestown, N. Y.
 Cribben and Sexton Co., 700 N. Sacramento, Chicago, Ill.
 Crise Controls Div. Acro Mfg. Co., 2040 E. Main St., Columbus 16, Ohio.
 Cristy Specialty Corp., Worcester, Mass.
 Crocker-Wheeler Div., Elliott Co., Ampere 1, N. J.

Cromley's, Lewisburg, Pa.
 Cronstroms Inc., 4225 Hiawatha Ave., Minneapolis, Minn.
 Cross & Currier Mfg. Co., Inc., 173 Washington St., Claremont, N. H.
 Cross Engineering Co., 160-178 Dundaff St., Carbondale, Pa.
 Crowell & Dunn, Inc., 225 Lafayette St., New York, N. Y.
 Crown Controls Co., Inc., New Bremen, Ohio.
 Crown Engineering Corp., Locust St., Keyport, N. J.
 Crucible Steel Co., Henry W. Oliver Bldg., P. O. Box 88, Pittsburgh 30, Pa.
 Cuno Engineering Corp., 76 S. Vine St., Meridan, Conn.
 Cuprometal Mfg. Corp., 44th Ave., & Junction Blvd., Corona, N. Y.
 Curtis Refrigerating Machine, Div. Curtis Mfg. Co., 1946 Kienlen Av., St. Louis 20, Mo.
 Custom Industries Mfg., 108 Maple Dr., Newton Falls, O.
 Custom Mfg. Co., 4105 W. Fullerton Ave., Chicago 39, Ill.
 Cutler-Hammer, Inc., 430 N. 12th St., Milwaukee 1, Wis.
 Cuyahoga Spring Co., 10254 Berea Road, Cleveland 2, Ohio.

D

Daffin Mfg. Co., North Prince St., Lancaster, Pa.
 Dahlstrom Machine Works, 4227 W. Belmont Ave., Chicago 41, Ill.
 Dahlstrom Metallic Door Co., S. E. Cor. E. Second & Buffalo Sts., Jamestown, N. Y.
 Dalsin Metal Products, 3506 Bloomington Ave., Minneapolis 7, Minn.
 Daly, Merritt & Sullivan, Inc., West Broad St., Falls Church, Va.
 Dalzen Mfg. Co., 325 S. Riverside, St. Clair, Mich.
 Damascus Steel Products Corp., 2215 Kishwaukee St., Rockford, Ill.
 Damp-Vent Co., Box 203, Bettendorf, Ia.
 Dana Fan & Blower Corp., 3501 Colerain Ave., Cincinnati 23, Ohio.
 Daniels Mfg. Co., Inc., Sam, Daniels Rd., Hardwick, Vt.
 Danzer Metal Works Co., Box 128, Hagerstown, Md.
 Davidson Hyduty Roof Fan Co., 213 California St., Newton 58, Mass.
 Davis Regulator Co., 2546 S. Washtenaw Av., Chicago 8, Ill.
 Davis & Son Machine Works, 8426 Compton Av., Los Angeles 1, Calif.
 Davrus Corp., Box 1221, Joliet, Ill.
 Day Co., 810 Third Av., N. E., Minneapolis 13, Minn.
 Day & Night Div., Affiliated Gas Equipment, Inc., P. O. Box 150, Monrovia, Calif.
 Dayton Rogers Mfg. Co., 2830 13th Av., S. Minneapolis 7, Minn.
 Dayton Rubber Co., 2342 W. Riverview Av., Dayton 1, Ohio.
 Dearborn Chemical Co., Merchandise Mart Plaza, Chicago 54, Ill.
 Dearborn Stove Co., 1700 W. Commerce St., Dallas 8, Texas.
 Debevoise Co., 74 20th St., Brooklyn 32, N. Y.
 De Bothezat Fans Div., American Machine & Metals, Inc., East Moline, Ill.
 Deepfreeze Appliance Div., Motor Products Corp., North Chicago, Ill.
 Deering Air Cond. Co., 1069 Celestial, Cincinnati, Ohio.
 Defender Instrument and Regulator Co., 815 Clark Av., St. Louis 2, Mo.
 Delavan Mfg. Co., Grand Ave. & Fourth St., West Des Moines, Ia.
 Delco Appliance Div., General Motors Corp., 391 Lyell Ave., Rochester 6, N. Y.
 Delco Products Div., General Motors Corp., 329 E. First St., Dayton, Ohio.
 D'Elia Oil Burner Co., 145 Stratford Ave., Bridgeport 8, Conn.
 Delo Screw Products Co., 38 S. Franklin St., Delaware, O.
 Delta Heating Corp., 1 Cole St., Trenton 8, N. J.
 Delta Power Tool Div., Rockwell Mfg. Co., 400 N. Lexington Ave., Pittsburgh 8, Pa.
 Deluxe Furnace & Wall Heater Co., 1824 S. Burlington Av., Los Angeles 6, Calif.
 DeLuxe Oil Burner Co., 2121 First Av., Seattle, Wash.
 Demuth & Sons, Inc., Charles, 245 Elm Pl. Mineola, L. I., N. Y.
 Deniston Co., 4856 S. Western Ave., Chicago 9, Ill.
 Denver Fire Clay Co., 2301 Blake St., Denver 17, Colo.
 Dersch, Gesswein & Neuert, Inc., 4849 W. Grand Ave., Chicago 39, Ill.
 Desmond-Stephan Mfg. Co., Urbana, O.
 DeSoto Oil Burner Corp., 538 S. Queen St., York, Pa.
 Despatch Oven Co., 619 Southeast St., Minneapolis 14, Minn.
 De-Tec-Tronic Corp., 2512 N. Halsted St., Chicago 14, Ill.
 Detroit Air Conditioning Service Co., Nashville, Mich.

Detroit Brass & Malleable Works, 100 S. Campbell, Detroit, Mich.
 Detroit Controls Corp., 5900 Trumbull Ave., Detroit 8, Mich.
 Detroit Hoist & Machine Co., 8202 Morrow St., Detroit 11, Mich.
 Detroit Moulding Div., L. A. Young Spring & Wire Corp., 9210 Russell St., Detroit 11, Mich.
 Detroit Safety Furnace Pipe Co., 5960 Second Blvd., Detroit 2, Mich.
 Detroit Stamping Co., 350 Midland Ave., Detroit 3, Mich.
 Detroit Steel Products Co., 2250 E. Grand Blvd., Detroit 11, Mich.
 Detroit Stoker Co., General Motors Bldg., Detroit 2, Mich.
 DeVilbiss Co., The, 300 Phillips Ave., Toledo 1, Ohio.
 Devine Mfg. Co., J. P., 24-28 Sade St., Passaic, N. J.
 Bldg., Pittsburgh 22, Pa.
 Devoe & Reynolds Co., Inc., 44th St. & 1st Ave., New York 17, N. Y.
 Diamond Castings Co., Terra Cotta Rd., Johnsonburg, Pa.
 Diamond Expansion Bolt Co., Inc., 500 North Ave., Garwood, N. J.
 Diamond Machine Tool Co., 5111 Coffman-Pico Rd., Pico, Calif.
 Diamond Mfg. Co., 243 W. 8th St., Wyoming, Pa.
 Diceler Div., General Machine & Mfg. Co., Berwick, Pa.
 Dick Co., Inc., R. & J., 24-28 Sade St., Passaic, N. J.
 Dickson Co., 7420 Woodlawn Ave., Chicago 19, Ill.
 Dickson Weatherproof Nail Co., P. O. Box 590, Evanston, Ill.
 Dieckmann Co., Ferdinand, 1180 Harrison Ave., Cincinnati 22, Ohio.
 Diehl Mfg. Co., 1117 Finner Ave., Somerville, N. J.
 Dielectric Products Corp., Inc., 125 Virginia Ave., Jersey City 5, N. J.
 Diesel Oil Burner Corp., 105-20 New York Blvd., Jamaica, N. Y.
 Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.
 Diston & Sons, Inc., Henry, Unruh & Milnor Sts., Philadelphia 35, Pa.
 Division Lead Co., 7742 W. 61st Pl., Summit, Ill.
 DoALL Co., 254 Laurel Ave., Des Plaines, Ill.
 Dockson Corp., 3839 Wabash Ave., Detroit 8, Mich.
 Dodge Div., Chrysler Corp., 21500 Mound Rd., Detroit 31, Mich.
 Dodge Mfg. Corp., 500 S. Union St., Mishawaka, Ind.
 Doelger & Kirsten, Inc., 3015 W. Chambers St., Milwaukee 10, Wis.
 Dole Valve Co., 1933 W. Carroll Ave., Chicago 12, Ill.
 Dollinger Corp., 11 Centre Park, Rochester 3, N. Y.
 Domestic Mfg. Co., 201 Westlake, N., Seattle 1, Wash.
 Dongan Electric Mfg. Co., 2981 Franklin St., Detroit 7, Mich.
 Donley Bros. Co., 13932 Miles Ave., Cleveland, O.
 Dormeyer Industries, 3418 Milwaukee Ave., Chicago 41, Ill.
 Dornback Furnace & Foundry Co., 724 E. 103rd St., Cleveland 8, Ohio.
 Dover Mfg. Co., Box 498, Independence, Mo.
 Dow Chemical Co., Midland, Mich.
 Dowagiac Steel Furnace Co., Beeson St., Dowagiac, Mich.
 Downs-Smith Brass & Copper Co., Inc., 304-320 E. 45th St., New York 17, N. Y.
 Doyle & Roth Mfg. Co., Foot of 23rd St., Brooklyn 32, N. Y.
 Doyle Vacuum Cleaner Co., 225 Stevens St., S. W., Grand Rapids 2, Mich.
 Dravo Corp., Chamber of Commerce Bldg., 411 Seventh Ave., Pittsburgh 19, Pa.
 Drayer-Hanson, Inc., Box 2215, Terminal Annex, Los Angeles 54, Calif.
 Dreis & Krump Mfg. Co., 7404 Loomis Blvd., Chicago 36, Ill.
 Drico Industrial Corp., 559 W. 35th St., New York 1, N. Y.
 Drilo, Inc., 201 E. Carson St., Pittsburgh, Pa.
 Dry & Sons, J. R., Box 927, Winters, Tex.
 Drying Systems, Inc., 1812½ W. Foster Ave., Chicago 40, Ill.
 Dryomatic Corp., 812 N. Fairfax St., Alexandria, Va.
 Dual-Air Fan Co., P. O. Box 208, Hampshire, Ill.
 Dualtron Co., 322 Perry Hwy., Pittsburgh 29, Pa.
 Ducane Heating Corp., 230 Goffle Rd., Hawthorne, N. J.
 Duc-Pac, Div. of Swett Bros., 78 Island Pond Rd., Springfield, Mass.
 Dunn-Rite Products, P. O. Box 297, Garden City, Mich.
 Duo-Therm Div., Motor Wheel Corp., Lansing 3, Mich.
 du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.
 Durex Refractories Co., 5252 Broadway, Chicago 40, Ill.
 Duro-Dyne Corp., 800 Third Ave., New Hyde Park, L.I., N.Y.
 Dust Suppression & Engineering Co., 154 Grove St., Lake Orion, Mich.
 Dwyer Mfg. Co., F. W., 317 S. Western Av., Chicago 12, Ill.

E

Eagle Chemical Co., Inc., 1501 W. Congress St., Chicago 7, Ill.
 Eagle-Picher Co., American Bldg., Central Pkwy. & Walnut, Cincinnati 1, Ohio.
 East Coast Co., 141 Milk St., Boston 9, Mass.
 Eastern Air Devices, Inc., 385 Central Ave., Dover, N. H.
 Eastern Oil & Equipment Co., 27 Portland St., Portland 1, Maine.
 Eastern Stainless Steel Corp., P. O. Box 1975, Baltimore 3, Md.
 Ebco Mfg. Co., 401 W. Town St., Columbus 8, Ohio.
 Eckhart Mfg. Co., Inc., 931 Lehigh Av., P. O. Box 248, Union, N. J.
 Eclipse Air Brush Co., 390 Park Ave., Newark 7, N. J.
 Eclipse Fuel Engineering Co., 1017 Buchanan St., Rockford, Ill.
 Econo-Matic Products Co., Inc., 11803 Grand River Ave., Detroit 4, Mich.
 Eddington Metal Specialty Co., P. O. Box K, Eddington, Pa.
 Eddy Stoker Corp., 4717 W. North Av., Chicago 39, Ill.
 Edwards Mfg. Co., Inc., 337 Eggleston Av., Cincinnati 2, Ohio.
 Efco Products Co., P. O. Box 154, Eastwood Sta., Syracuse 6, N. Y.
 Ehret Magnesia Mfg. Co., Valley Forge, Pa.
 Eisler Engineering Co., 761 S. 13th St., Newark 3, N. J.
 Elco Tool & Screw Corp., 1800 Broadway, Rockford, Ill.
 Electrical Components Co., Div. of National Ceramic Co., 500 Southard St., Trenton 2, N. J.
 Electric Arc, Inc., 152 Jelliff Av., Newark 8, N. J.
 Electric Controller & Mfg. Co., 2700 E. 79th St., Cleveland 4, Ohio.
 Electric Furnace-Man, Inc., 4th & Furnace Sts., Emmaus, Pa.
 Electric Heating Products Co., 5800 S. Central Ave., Phoenix, Ariz.
 Electric Machinery Mfg. Co., 1137 Tyler St., N. E., Minneapolis 13, Minn.
 Electric Motor Corp., Div. Howard Industries, Inc., Racine, Wis.
 Electric Sprayit Div., Thomas Industries, Inc., 1415 Illinois Av., Sheboygan, Wis.
 Electriglas Corp., Bergenfield, N. J.
 Electro-Air Cleaner Co., 1285 Reedsdale St., Pittsburgh, Pa.
 Electro Dustless Painting, Inc., 1032 New Britain Av., Elmwood 10, Conn.
 Electro Dynamic Div., General Dynamics Corp., 163 Avenue A, Bayonne, N. J.
 Electrol Burner Mfg. Co., Inc., 22 Union Av., Rutherford, N. J.
 Electro Lift, Inc., 204 Sargeant Ave., Clifton, N. J.
 Electromode Corp., 45 Crouch St., Rochester 3, N. Y.
 Electronic Products Co., St. Charles, Ill.
 Electrovent Fan & Mfg. Co., 812 W. Lake St., Chicago 7, Ill.
 Electro-Watt Inc., Mercer & Aurora, Seattle 9, Wash.
 Elgen Mfg. Corp., 41-34-39th St., Long Island City 4, N. Y.
 Elgo Shutter & Mfg. Co., 2738 W. Warren Av., Detroit 8, Mich.
 Ellison Draft Gage Co., 548 W. Monroe St., Chicago 6, Ill.
 Elwell-Parker Elec. Co., 4131 St. Clair, Cleveland 3, Ohio.
 Emerson Electric Mfg. Co., 8100 Florissant Av., St. Louis 21, Mo.
 Empire Chemical Products Co., 10 Longworth St., Newark, N. J.
 Empire Door Co., Inc., 431 Southern Blvd., New York 55, N. Y.
 Empire Metal Co., 820 E. Water St., Syracuse, N. Y.
 Empire Stove Co., Belleville, Ill.
 Empire Ventilation Equipment Co., 35-129 Vernon Blvd., Long Island City 1, N. Y.
 Enderle, Inc., Ltd., Frank X., 1715 San Fernando Rd., Los Angeles 65, Calif.
 Engelhard, Inc., Chas., 850 Passaic Ave., East Newark, N. J.
 Engel Sheet Metal Equipment, Inc., 3001 N. Union, St. Louis 15, Mo.
 Engineering Industries Co., Ltd., 650 Dupont St., Toronto, Ont., Canada.
 Enico Products, 16573 Littefield Av., Detroit, Mich.
 Equi-Dyne, Inc., 5729 W. Ohio, Chicago 44, Ill.
 Erdle Perforating Co., 171 York St., Rochester 11, N. Y.
 Ergolyte Mfg. Co., 3627 N. Lawrence St., Philadelphia 40, Pa.
 Erickson Specialty Co., 10 Cayuga St., P. O. Box 141, Cohoes, N. Y.
 Erie Enameling Co., 1400 W. 20th St., Erie, Pa.
 Eriez Mfg. Co., 101 Magnet Dr., Erie, Pa.
 Eiselgroth & Co., 22 Edison Pl., Newark 2, N. J.
 Ess Instrument Co., 96 S. Washington Ave., Bergenfield, N. J.
 Essick Mfg. Co., 1950 Santa Fe Av., Los Angeles 21, Calif.
 Eston Chemicals Div., American Potash & Chemical Corp., 3100 E. 26th St., Los Angeles, Calif.
 Etched Products Co., 3901 Queens Blvd., Long Island City 4, N. Y.

Euclid Crane & Hoist Co., 1365 Chardon Rd., Euclid 17, Ohio.
 Eutectic Welding Alloys Corp., 40-40 172nd St., Flushing, N. Y.
 Evans Corp., George, 121 37th St., Moline, Ill.
 Eveready Supply Co., 3207 Gaston Av., Dallas 2, Texas.
 Everhot Heater Co., 5189 Wesson Av., Detroit 10, Mich.
 Everhot Mfg. Co., 57 S. 19th Av., Maywood, Ill.
 Everhot Products Co., 2039 W. Carroll Av., Chicago 12, Ill.
 Excel Heating & Air Conditioning Co., 3715 Belmont Av., Chicago 18, Ill.
 Excelsior Steel Furnace Co., 118 S. Clinton St., Chicago 6, Ill.
 Excelsior Stove & Mfg. Co., 510 S. Front St., Quincy, Ill.
 Excelsior Tool & Machine Co., 31st & Ridge Av., East St. Louis, Ill.
 Expert Welding Machine Co., 17144 Mt. Elliott St., Detroit, Mich.

F

F & E Mfg. Co., Box D, Centerville, Calif.
 Fabricated Products Co., West Newton, Pa.
 Fafnir Bearing Co., The, 37 Booth St., New Britain, Conn.
 Fageol Heat Machine Co., 5725 Mt. Elliott Ave., Detroit 11, Mich.
 Fairbanks, Morse & Co., 600 S. Michigan Av., Chicago 5, Ill.
 Fairfield Oil Heating Co., Inc., Greenwich, Conn.
 Fairmont Aluminum Co., P. O. Box 912, Fairmont, W. Va.
 Fairmount Tool & Forging Co., 10611 Quincy Av., Cleveland 6, Ohio.
 Fallsington Mfg. Co., Fallsington, Pa.
 Falstrom Co., 18 Falstrom Court, Passaic, N. J.
 Famco Machine Co., 3100 Sheridan Rd., Kenosha, Wis.
 Famous Furnace Co., 6420 Woodland Ave., Cleveland 4, Ohio.
 Fanner Metals Products Co., 2323 E. 67th St., Cleveland, O.
 Fano-Feld Oil Burner Co., 3323 Olive St., Huntington Park, Calif.
 Farquhar Furnace Co., 230 Owens Av., Wilmington, Ohio.
 Farr Co., Box 45187, Airport Sta., Los Angeles 45, Calif.
 Farrelloy Co., 1243 N. 26th St., Philadelphia 21, Pa.
 Fasco Industries, Inc., Box 509, Rochester 2, N. Y.
 Faultless Heater Corp., 10217 St. Clair Av., Cleveland, Ohio.
 Favorite Stove Co., 440 Weber St., Piqua, Ohio.
 Fayette Mfg. Co., Fayette, O.
 Fedders-Quigan Corp., 57 Tonawanda St., Buffalo 7, N. Y.
 Federal Machine & Welder Co., Overland Ave., Warren, Ohio.
 Federal Machinery Co., 134 Grand St., New York 13, N. Y.
 Federated Metals Div., American Smelting and Refining Co., 120 Broadway, New York 5, N. Y.
 Fee & Mason Mfg. Co., Manassquan, N. J.
 Fee & Stemwedel, Inc., 2210 Wabansia Av., Chicago 47, Ill.
 Felter Co., John, 3355 McCullough, San Antonio, Tex.
 Felters Co., Inc., 210 South St., Boston 11, Mass.
 Fenwal Inc., Ashland, Mass.
 Fenway Machine Sales Co., Inc., 263 W. 23rd St., Philadelphia 3, Pa.
 Fern, Ralph, 2517 Boulevard Av., Scranton 9, Pa.
 Ferro-Enamel Corp., 4150 E. 56th, Cleveland, O.
 Field Control Div., H. D. Conkey & Co., Drawer 11, Mendota, Ill.
 Fieser Co., F. J., 34 W. 21st St., New York 10, N. Y.
 Figge Co., 1734 W. Ogden Av., Chicago 12, Ill.
 Filkins, Inc., Edward, 9 S. Clinton St., Chicago 6, Ill.
 Filtrex Corp., 33-40 127th Pl., Corona, N. Y.
 Finger, Joe, 7907 Madison Av., Cleveland 2, Ohio.
 Fingles Co., Reisterstown Rd. at Elgin Av., Baltimore 17, Md.
 Finn Engineers, Inc., Jerry, 634 Grand Ave., St. Paul 5, Minn.
 Fireline Stove & Furnace Lining Co., 1816 Kingsbury St., Chicago 14, Ill.
 Firestone Industrial Products Co., Firestone Park, Akron 17, Ohio.
 Firewel Co., Inc., 3685 Broadway, Buffalo 25, N. Y.
 Fisher Brass Foundry, 3332 S. Santa Fe Ave., Los Angeles 11, Calif.
 Fisher Governor Co., 203 First Av., Marshalltown, Iowa.
 Flagler Corp., The, 19321 Filer Ave., Detroit, Mich.
 Flame-Master Co., 6651 N. Clark St., Chicago, Ill.
 Flemm Lead Co., Inc., Bradley Av. & School St., Long Island City 1, N. Y.
 Flexaust Co., The, 100 Park Ave., New York 17, N. Y.
 Flexible Tubing Corp., Guilford, Conn.
 Flexonics Corp., 1315 S. Third Ave., Maywood, Ill.
 Flight Mfg. Corp., 925 N. 8th St., Camden 2, N. J.
 Flintkote Co., 30 Rockefeller Plaza, New York 20, N. Y.
 Flood Co., Hudson, Ohio.
 Floral City Heater Co., 402 S. Monroe St., Monroe, Mich.
 Floridin Co., Box 998, Tallahassee, Fla.
 Fluid Heat Div. Anchor Post Products, Inc., 6720 Eastern Av., Baltimore 24, Md.

Fluor Corp., Ltd., The, 2500 S. Atlantic Blvd., Los Angeles 22, Calif.
 Fluxolder Products Co., 511 W. Larned, Detroit, Mich.
 Flynn & Emrich Co., 301 Holliday St., Baltimore 2, Md.
 Follansbee Steel Corp., 140 Stanwix St., Pittsburgh, Pa.
 Folsom Snow Guard Co., 94 Hollis St., Holliston, Mass.
 Foote Foundry Co., J. B., N. Main St., Fredericktown, Ohio.
 Ford Chain Block Div., American Chain & Cable Co., Inc., York, Pa.
 Ford Motor Co., Dearborn, Mich.
 Forest City Foundries Co., Niagara Furnace Div. 2500 W. 27th St., Cleveland 13, Ohio.
 Forston Co., 1400 Conti St., Houston 2, Tex.
 Foster Engineering Co., 835 Lehigh St., Union, N. J.
 Foxboro Co., 38 Neponset Ave., Foxboro, Mass.
 Fox Noiseless Hammer Co., 77 Green Hill Rd., Media, Pa.
 Fox Products Co., 4720 N. 18th St., Philadelphia 41, Pa.
 Fram Corp., Dexter, Mich.
 Fram Corp., Providence 16, R. I.
 Franck & Fric, 7109 Kinsman Rd., Cleveland 4, Ohio.
 Franklin Electric Co., Inc., E. Spring St., Bluffton, Ind.
 Fraser & Johnston Co., 1900 17th St., San Francisco 3, Calif.
 Frayn Co., N. J., P. O. Box 1005, Redwood City, Calif.
 Frederick Iron & Steel, Inc., Frederick, Md.
 Freed Products Co., 1510 Third Ave., Moline, Ill.
 Fresh Air Circulator Co., 3108 Navigation, Houston 3, Texas.
 Fresh-Aire Co., Div. of Cory Corp., 221 N. LaSalle St., Chicago 1, Ill.
 Frey & Co., Frank P., 2634 W. Madison St., Chicago 12, Ill.
 Frick Co., W. Main St., Waynesboro, Pa.
 Friedrich Refrigerators, Inc., 1117 E. Commerce, San Antonio, Tex.
 Friez Instrument Div., Bendix Aviation Corp., 1400 Taylor Av., Baltimore 4, Md.
 Frigidaire Div., General Motors Corp., 300 Taylor St., Dayton, Ohio.
 Frigid, Inc., 128-168 Thirty-Second St., Brooklyn 32, N. Y.
 Front Rank Furnace Co., Div. Liberty Foundry Co., 2500 Ohio Av., St. Louis 4, Mo.
 Fry Reglet Corp., P. O. Box 411, Bremerton, Wash.
 Fuelguard Co., 5643 Dyer St., Dallas 6, Texas.
 Fuel Reduction Corp., 220 N. Ada St., Chicago 7, Ill.
 Fuel Savers, Inc., 1301 Herr St., Harrisburg, Pa.
 Fulton Sylphon Div., Robertshaw-Fulton Controls Co., Box 400, Knoxville 1, Tenn.
 Furblo Co., Hermansville, Mich.
 Furnas Electric Co., Batavia, Ill.
 Fusion Engineering, 4504 Superior Ave., Cleveland 3, Ohio.
 Fyne Aire Mfg. Co., 2125 N. Harwood St., Dallas, Tex.

G

G. M. Mfg. Co., 30 W. Third St., New York 12, N. Y.
 GMC Truck & Coach Div., General Motors Corp., South Boulevard, Pontiac, Mich.
 G. & O. Mfg. Co., 138 Winchester Av., New Haven 8, Conn.
 G. & S. Machine Shop, 8700 Grinnell, Detroit 13, Mich.
 Galvan Mfg. Co., Box 267, New Albany, Ind.
 Galvicon Corp., 40 W. 29th St., New York 1, N. Y.
 Garden City Fan Co., 332 S. Michigan Blvd., Chicago 4, Ill.
 Garman Co., Inc., 1253 Grover, St. Louis 23, Mo.
 Gary Steel Products Co., 4400 W. 9th St., Gary, Ind.
 Gas Arc Supply, 223 N. 16th St., Philadelphia 2, Pa.
 Gasinator Mfg. Co., 2108 Payne Ave., Cleveland, O.
 Gas & Oil Industry Laboratories, Inc., 4 Paine Av., Irvington 11, N. J.
 Gas-Posall Corp., 1730 Train Ave., Cleveland 13, O.
 Gates & Co., Inc., George W., Hempstead Tpke & Lucille Ave., Franklin Sq., L. I., N. Y.
 Gates Rubber Co., 999 S. Broadway, Denver 17, Colo.
 Gehri Co., 1117 Tacoma Ave., Tacoma 3, Wash.
 Geisel Mfg. Inc., 61 West Av., Elyria, Ohio.
 Gematic Burner Co., 16830 Miles Av., Cleveland 22, Ohio.
 General Appliance Corp., Greenville, Mich.
 General Automatic Products Corp., 2300 Sinclair Lane, Baltimore, Md.
 General Blower Co., 8600 Ferris Av., Morton Grove, Ill.
 General Blower Co., Inc., 6137 Market St., Philadelphia 39, Pa.
 General Bronze Corp., Stewart Ave., Garden City, L. I., N. Y.
 General Chemical Div., Allied Chemical & Die Corp., 40 Rector St., New York 6, N. Y.
 General Controls Co., 801 Allen Av., Glendale 1, Calif.
 General Die and Stamping Co., 262 Mott St., New York 12, N. Y.
 General Electric Co., Air Conditioning Div., 5 Lawrence St., Bloomfield, N. J.

General Electric Co., Apparatus Sales Div., 1 River Rd., Schenectady 5, N. Y.
 General Electric Co., Capacitor Dept., Hudson Falls, N. Y.
 General Electric Co., Carbonyl Dept., 11177 E. Eight Mile Rd., Detroit 32, Mich.
 General Electric Co., Chemical and Metallurgical Div., 1 Plastics Ave., Pittsfield, Mass.
 General Electric Co., Lamp Div., Nela Park, Cleveland 12, Ohio.
 General Electric Co., Major Appliance Div., Room Air Conditioner Dept., 301 W. Liberty St., Louisville, Ky.
 General Engineering Co., Bay City, Mich.
 General Filters, Inc., 43800 Grand River Ave., Novi, Mich.
 General Fittings Co., 123 Georgia Ave., Providence 3, R. I.
 General Gas Light Co., 202 N. Park St., Kalamazoo 11F, Mich.
 General Oil Heating Corp., 322-6 55th St., West New York, N. J.
 General Ozone Corp., 855 W. Washington Blvd., Chicago 80, Ill.
 General Plate Div., Metals & Controls Corp., 34 Forest St., Attleboro, Mass.
 General Products Co., Fredericksburg, Va.
 General Register Corp., 14 Factory St., Cedar Grove, N. J.
 General Scientific Equipment Co., 27th & Huntington Sts., Philadelphia 32, Pa.
 General Sheet Metal Works, Inc., Silliman Av. & Ash St., Bridgeport 3, Conn.
 General Water Heater Corp., Front St. & Magnolia Blvd., Box 471, Burbank, Calif.
 Generator Sales Co., 1627 N. Damen Ave., Chicago 47, Ill.
 Ger-Am Imports, Box 867, Evergreen Park Br., Chicago 42, Ill.
 Gerett Corp., M. A. 724 W. Winnebago St., Milwaukee 3, Wis.
 Gerhardt W. F., 2007 W. Broad St., Richmond 20, Va.
 Gerhardt Co., Inc., George T., P. O. Box 516, Sausalito, Calif.
 Germatrol Corp., 622 Brookline Blvd., Pittsburgh 26, Pa.
 Gerrard & Co., A. J., 1950 Hawthorne Ave., Melrose Park, Ill.
 Gerstein & Cooper Co., Inc., 1 W. 3rd St., South Boston, Mass.
 Gervin Industries, Thermo-Base Div., 214 Spring St., Michigan City, Ind.
 Gibson Industries, 965 W. Western Ave., Muskegon, Mich.
 Gibson Refrigerator Co., 515 W. Williams, Greenville, Mich.
 Gilbert & Barker Mfg. Co., West Springfield, Mass.
 Gillen Co., J. L., 12202 Wormer Ave., Detroit 39, Mich.
 Gilmore Burners, Inc., 1028 E. 134th St., Cleveland, O.
 Gilmore & Co., Jackson G., 167 E. State St., Columbus 15, Ohio.
 Gisholt Machine Co., 1233 E. Washington Av., Madison 10, Wis.
 Glasby Mfg. Co., Inc., J. P., Montgomery & Willett Sts., Belleville 9, N. J.
 Glaser Lead Co., Inc., 31 Wyckoff Av., Brooklyn 37, N. Y.
 Glass Fibers Inc., 1810 Madison Ave., Toledo 2, O.
 Glidden Co., 11001 Madison Av., Cleveland 2, Ohio.
 Globe Roofing Products Co., Inc., 2207 Schrage Av., Whiting, Ind.
 Goder Incinerator Corp., 407 S. Dearborn, Chicago 5, Ill.
 Goergen-Mackwith Engineering Co., 813 Sycamore St., Buffalo 12, N. Y.
 Goethel Sheet Metal Works, Inc., Alfred, 3218 W. Fond du Lac Av., Milwaukee 10, Wis.
 Goldens Foundry & Machine Co., P. O. Box 96, Columbus, Ga.
 Goldsmith Metal Lath Co., 4301 Chickering Ave., Cincinnati 32, Ohio.
 Gold Top Heating, Inc., 1400 E. 2nd St., Butte, Mont.
 Goodfellow Co., Inc., E. D., 496 E. Bodley Ave., Memphis, Tenn.
 Goodrich Co., B. F., 500 S. Main St., Akron, Ohio.
 Goodyear Tire & Rubber Co., Inc., 1144 E. Market St., Akron 16, Ohio.
 Goss Gas, Inc., Rt. 8, Glenshaw, Pa.
 Gouran, Mark F., 325 North Easton Rd., Glenside, Pa.
 Governair Corp., 513 N. Blackwelder, Oklahoma City 4, Okla.
 Graham Hamby Co., 3625 S. Grand Av., Los Angeles 7, Calif.
 Graham Mfg. Corp., 1541 East Eight Mile Rd., Ferndale 20, Mich.
 Grand Island Furnace & Supply Co., 356 N. Elm St., Grand Island, Nebr.
 Grand Rapids Wire Products Co., 503 Front Av., N. W., Grand Rapids 4, Mich.
 Granite City Steel Co., 20th & Madison Av., Granite City, Ill.
 Gray, G. L., 295 East St., P. O. Box 520, New Haven 3, Conn.
 Gray & Dudley Co., 2300 Clifton Rd., Nashville, Tenn.
 Gray Metal Products, Inc., 30 Carleton St., Rochester 3, N. Y.
 Greenberg's Sons, M., 765 Folsom St., San Francisco 7, Calif.
 Green Colonial Furnace Co., 322 S. W. Third St., Des Moines 7, Iowa.
 Greene, Tweed & Co., North Wales, Pa.
 Green Fire Brick Co., A. P., Mexico, Mo.
 Greenheck Bros. Mfg. Co., Schofield, Wis.
 Grinnell Co., Inc., 260 W. Exchange St., Providence 1, R. I.
 Grob Inc., Grafton, Wis.
 Gross-Aire Mfg Co., 9416 W. Milton Ave., St. Louis 14, Mo.

Grove Regulator Co., 6529 Hollis St., Oakland, Calif.
 Guardian Electric Mfg. Co., 1621 W. Walnut St., Chicago 12, Ill.
 Guardian Products Corp., 1215 E. 2nd St., Michigan City, Ind.
 Gustin-Bacon Mfg. Co., 210 West 10th St., Kansas City 7, Mo.

H

H. A. Mfg. Co., 1612 W. King St., York, Pa.
 H-B Instrument Co., American & Bristol Sts., Philadelphia 40, Pa.
 H & H Research Co., 6303 Horatio Ave., Detroit 10, Mich.
 H-P Products, Inc., 510 W. Broad St., Louisville, Ohio.
 H P L Mfg. Co., 15210 Miles Av., Cleveland 28, Ohio.
 Haertel Co., Walter, 2840 - 4th Ave., S., Minneapolis, Minn.
 Hago Products, 1281 Springfield Ave., Irvington 11, N. J.
 Hague & Co., Alfred, 224 34th St., Brooklyn 32, N. Y.
 Haines Gauge Co., Inc., 2301 W. Allegheny Av., Philadelphia 32, Pa.
 Hall-Neal Furnace Co., 1326 N. Capitol Ave., Indianapolis 7, Ind.
 Hallmor, Inc., McMurray Rd., Bridgeville, Pa.
 Haistead & Mitchell, Bessemer Bldg., Pittsburgh 22, Pa.
 Hamilton Tool Co., The, 9th St. at Hanover, Hamilton, O.
 Hamler Boiler & Tank Co., 6025 W. 66th St., Chicago, Ill.
 Hammel Radiator Engineering Co., 3348 Motor Av., Los Angeles 34, Calif.
 Hammett Electric Mfg. Co., 706 E. Eighteenth St., Kansas City 8, Mo.
 Hammond Machinery Builders, Inc., 1694 Douglas Av., Kalamazoo 54, Mich.
 Handee Co., Dept. R-161, Bloomington, Ill.
 Handelan Washed Air Co., 4006 Washburn Av., South Minneapolis, Minn.
 Handley-Brown Heater Co., 2501 Brooklyn Rd., Jackson, Mich.
 Handy & Harman, 82 Fulton St., New York 38, N. Y.
 Haney Gas Burner & Engrs., 909 S. Myrtle Ave., Monrovia, Calif.
 Hanlan Co., 1416 W. Jefferson Blvd., Los Angeles 7, Calif.
 Hanovia Chemical & Mfg. Co., 100 Chestnut St., Newark 3, N. J.
 Hansen Gas & Electric Co., 680 Valencia St., San Francisco 10, Calif.
 Harco Products, 3624 Jerusalem Ave., Wantagh, N. Y.
 Hammond Co., 2114 Woodland, Cleveland, O.
 Harnischfeger Corp., 4400 W. National Ave., Milwaukee 46, Wis.
 Harper Co., H. M., 8200 Lehigh Ave., Morton Grove, Ill.
 Harper Metal Products, Ltd., 27 Layne Pl., San Bruno, Calif.
 Harrington Co., The, Grovers Rd. at the Turnpike, Plymouth Meeting, Pa.
 Harrington & King Perforating Co., 3649 Fillmore St., Chicago 44, Ill.
 Harris, A. R., 4546 Hohman Ave., Hammond, Ind.
 Harris Caloric Co., 5501 Cass Av., N. W., Cleveland 2, Ohio.
 Harris Machinery Co., 501 30th Ave., S. E., Minneapolis 14, Minn.
 Harrison Sheet Steel Co., 4718 W. Fifth Av., Chicago 44, Ill.
 Harry Cooling Towers, Inc., 125 Cedar St., New York 6, N. Y.
 Hart & Cooley Mfg. Co., 500 E. Eighth St., Holland, Mich.
 Hart & Crouse Corp., 109 N. Warner St., Oneida, N. Y.
 Hart Heat Div., Avery Farm Machinery Co., Foot of Junction St., Peoria 2, Ill.
 Hart Mfg. Co., Bartholomew & Hamilton Sts., Hartford 1, Conn.
 Hartwell Co., 9035 Venice Blvd., Los Angeles 34, Calif.
 Hartzell Propeller Fan Co., Div. Castle Hills Corp., 1025 Roosevelt Av., Piqua, Ohio.
 Harvey Machine Co., Inc., 19200 S. Western Av., Torrance, Calif.
 Harvey, Inc., Sid, 100 E. Mineola Av., Valley Stream, N. Y.
 Harvey-Whipple, Inc., 2155 Columbus Ave., Springfield 1, Mass.
 Haskins Co., R. G., 2651 W. Harrison St., Chicago 12, Ill.
 Hasko Utilities Co., 879 Tenth Ave., New York 19, N. Y.
 Hassall, Inc., John, Clay & Oakland Sts., Brooklyn 22, N. Y.
 Hastings Air Conditioning Co., Inc., Box 474, 108 S. Colorado Av., Hastings, Nebr.
 Hastings Air Control, Inc., 3215 Leavenworth St., Omaha 5, Nebr.
 Hastings Instrument Co., Inc., Hampton, Va.
 Hauck Mfg. Co., 124-136 Tenth St., Brooklyn 15, N. Y.
 Hauserman Co., E. F., 6800 Grant Av., Cleveland 5, Ohio.
 Haveg Corp., Newark, Del.
 Havens Structural Steel Co., 1713 Crystal Ave., Kansas City, Mo.
 Hayes Furnace & Mfg. & Supply Co., 2929 S. Fairfax Ave., Los Angeles 16, Calif.
 Hayes Products Co., Box 202, Portsmouth, Va.
 Hays Corp., 782 E. Eighth St., Michigan City, Ind.
 Hays Mfg. Co., 801 W. 12th St., Erie 6, Pa.
 Health Trola Div., Excel Heating & Air Cond. Co., 3715 Belmont Ave., Chicago 18, Ill.
 Heartley Machine & Tool Co., 900-8 Summit St., Toledo, Ohio.
 Heatcraft Co., 419 W. Main St., Louisville 2, Ky.

Heating Assurance, Inc., 124 E. Augusta Av., Spokane 13, Wash.
 Heating Equipment Mfg Co., 600 Indiana St., San Francisco 7, Calif.
 Heating Specialties Co., Carroll P. O., Baltimore 29, Md.
 Heat-Seal Burner Co., 2018 Cumming Av., Omaha 2, Nebr.
 Heat-Timer Corp., 657 Broadway, New York 12, N. Y.
 Heat-Well Mfg. Co., 152 Chestnut St., Oakland 20, Calif.
 Heat-X-Changer Co., The, Brewster, N. Y.
 Heetrliter Co., 208 S. Blaine St., Newberg, Ore.
 Hegeler Zinc Co., P. O. Box 599, Danville, Ill.
 Heidrich-Nourse Co., 631 E. 3rd St., Los Angeles 13, Calif.
 Heil Co., 3000 W. Montana St., Milwaukee 1, Wis.
 Heil Process Equipment Corp., 12901 Elmwood Ave., Cleveland, O.
 Heimback Incinerator Mfg. Co., St. Paul, Minn.
 Heinrich Tools, Inc., 1536 Clark St., Racine, Wis.
 Hemphill Co., A. D., Lake City, Minn.
 Henderson & Co., Peter, 35 Cortland St., New York 7, N. Y.
 Henderson Furnace & Mfg. Corp., Sebastopol, Calif.
 Hendley & Whittemore Co., 6 Blackhawk Blvd., Beloit, Wis.
 Hendrick Mfg. Co., 37 Dundaff St., Carbondale, Pa.
 Henkel-Clauss Co., Fremont, Ohio.
 Henry Furnace Co., Medina, Ohio.
 Henry Valve Co., 3215 North Ave., Melrose Park, Ill.
 Henry & Wright Div., Emhart Mfg. Co., 760 Windsor St., Hartford 1, Conn.
 Herbster Products Co., 877 Addison Rd., Cleveland 3, O.
 Herco Oil Burner Corp., 131-135 Locust St., Lancaster, Pa.
 Hercules Chemical Co., Inc., 332 Canal St., New York 13, N. Y.
 Hercules Electric & Mfg. Co., Inc., 2500 Atlantic Av., Brooklyn 7, N. Y.
 Herman Body Co., 4400 Clayton Ave., St. Louis 10, Mo.
 Herrick Grate Co., Geo. S., 110 Liberty St., Syracuse 4, N. Y.
 Herron-Zimmers Molding Co., 3900 E. Outer Drive, Detroit, Mich.
 Hershey Machine & Foundry Co., Manheim, Pa.
 Hess Co., The, 1855 S. 54th Ave., Chicago 50, Ill.
 Hetzel Roofing Products Co., 67 Main St., Newark 5, N. J.
 Hexdall Co., A. M., Morris, Ill.
 Highland Engineering Co., 1742 Berkeley St., Santa Monica, Calif.
 Highside Chemicals Co., 10 Colfax Ave., Clifton, N. J.
 Hill & Co., E. Vernon, P. O. Box 189, Lake Geneva, Wis.
 Hillwood Mfg. Co., 21700 St. Clair Ave., Cleveland 17, Ohio.
 Hilo Varnish Corp., 376 Third St., Everett 49, Mass.
 Himelblau Associates, Inc., 1408 W. Harrison St., Chicago 7, Ill.
 Hinde & Dauch Paper Co., P. O. Box 861, Sandusky, Ohio.
 Hi-Qua Mfg. Co., 4709 Griscom St., Philadelphia 24, Pa.
 Hirsh Mfg. Co., P. O. Box 265, Garland, Texas.
 Hirschman-Pohle Co., Inc., 9 Lent Av., LeRoy, N. Y.
 Hobart Bros. Co., Canal Lock Square, Troy 1, Ohio.
 Hobsite Products Co., Inc., 308 Sussex St., Harrison, N. J.
 Hodel Chain Co., Div. of The National Screw & Mfg. Co., 3924 Cooper Av., Cleveland 3, Ohio.
 Holan Corp., J. H., 4100 W. 150th St., Cleveland, O.
 Holden Fan Co., 2503 Danforth, Detroit 12, Mich.
 Hold-Tite Valve Mfg. Co., 550 Fifth Ave., New York 36, N. Y.
 Holland Furnace Co., Holland, Mich.
 Hollup Corp., Div. National Cylinder Gas Co., 4700 W. 19th St., Chicago 50, Ill.
 Hollv Mfg. Co., 875 S. Arroyo Parkway, Pasadena 2, Calif.
 HomEase Products Div., Inc., Bogue Electric & Mfg. Co., 52 Iowa Av., Paterson 3, N. J.
 Home Furnace Co., 280 E. 6th St., Holland, Mich.
 Hones, Inc., Charles A., 122 S. Grand Av., Baldwin, N. Y.
 Hoover Co., The, Electric Motor Div., 68 Brook Ave., North Plainfield, N. J.
 Horn Co., Inc., A. C., 10th St. & 44th Av., Long Island City 1, N. Y.
 Horuman-Markin Corp., 2063 Penobscot Bldg., Detroit 26, Mich.
 Hoskinson Free Heater Inc., 248-47 Jamaica Ave., Bellerose, L.I., N.Y.
 Hossfeld Mfg. Co., 460 W. Third St., Winona, Minn.
 Hotentot Co., Inc., 2423 Farnham St., Omaha 2, Nebr.
 Hotpoint Co., 5600 W. Taylor St., Chicago 44, Ill.
 Hotstream Heater Co., 2363 E. 69th St., Cleveland 4, Ohio.
 Howard Iron Wks. & Alberger Heater Div., 287 Chicago St., Buffalo 4, N. Y.
 Howes-Woods Co., 210 Bridge St., Cambridge 41, Mass.
 Hoyt Heater Co. of No. Calif., 926 High St., Oakland, Calif.
 Hubbell Corp., Box 700, Hawley Rd., Mundelein, Ill.
 Hub Specialty Co., 53 Salem St., Reading, Mass.
 Huck Mfg. Co., 2480 Bellevue Av., Detroit 7, Mich.
 Hugert Mfg. Co., Rt. 3 & Chippewa Lake Rd., Medina, Ohio.
 Hunter Fan & Ventilating Co., 400 S. Front St., Memphis 2, Tenn.
 Hunt Heater Corp., 220 Twelfth Ave., N., Nashville, Tenn.
 Hunt & Son, Inc., C. B., Salem, Ohio

Hupp Corp., Globe Stamping Div., 1250 W. 76th St., Cleveland 2, Ohio.
 Hussey & Co., C. G., 2850 Second Av., Pittsburgh 19, Pa.
 Hutchinson Burner & Mfg. Co., 517 N. Main, Hutchinson, Kans.
 Hydrovalve Co., 1319 Utica Ave., Brooklyn 3, N. Y.
 Hy-Lo Burner Co., Inc., Eddington, Pa.
 Hyman & Sons, Joseph, Tioga, Livingston and Almond St., Philadelphia 34, Pa.
 Hynes & Cox Electric Corp., Cohoes Rd. & Elm St., Watervliet, N. Y.

I

Ideal Electric & Mfg. Co., E. First & Oak Sts., Mansfield, Ohio.
 Ideal Industries, Inc., 1084 Park Av., Sycamore, Ill.
 Iden Associates, 1805 N. Milwaukee Av., Chicago 47, Ill.
 Ilg Electric Ventilating Co., 2850 N. Crawford Av., Chicago 41, Ill.
 Illinois Bronze Powder Co., Inc., 2023 S. Clark St., Chicago 16, Ill.
 Illinois Iron & Bolt Co., Freeman Heating Div., 914 S. Michigan Av., Chicago 5, Ill.
 Illinois Testing Laboratories, Inc., 420 N. LaSalle St., Chicago 10, Ill.
 Illinois Zinc Co., 2959 W. 47th St., Chicago 32, Ill.
 Imperial Brass Mfg. Co., 1200 W. Harrison St., Chicago 7, Ill.
 Imperial Electric Co., 64 Ira Av., Akron 9, Ohio.
 Incinerator Products Co., 667 S. Post, Detroit, Mich.
 Independence Stove & Mfg. Co., Cor. Hayward & Cottage, Independence, Mo.
 Independent Blade Co., P. O. Box 1482, Joliet, Ill.
 Independent Nail & Packing Co., P. O. Box N. Bridgewater, Mass.
 Independent Register Co., 3747 E. 93rd St., Cleveland 5, Ohio.
 Industrial Brownhoist Corp., 135 Washington, Bay City, Mich.
 Industrial Engineering Corp., 206 N. Ninth St., Terre Haute, Ind.
 Industrial Equipment Co., The, Minster, O.
 Industrial Metal Protectives, 401 Homestead Av., Dayton, Ohio.
 Industrial Plastic Fabricators, Inc., Norwood, Mass.
 Industrial Screw Co., 711 W. Lake St., Chicago 6, Ill.
 Industrial Service Laboratories, 710 W. National Ave., Milwaukee 4, Wis.
 Industrial Sound Control, Inc., 45 Granby St., Hartford, Conn.
 Infra Insulation Inc., 525 Broadway, New York, N. Y.
 Ingersoll Products Div., Borg-Warner Corp., 760 E. Vine St., Kalamazoo, Mich.
 Ingersoll-Rand Co., 11 Broadway, New York 4, N. Y.
 Ingram Machinery Co., P. O. Box 305, Picher, Okla.
 Ingram-Richardson Co., Beaver Falls, Pa.
 Inland Steel Co., 38 S. Dearborn St., Chicago 3, Ill.
 Inland Steel Products Co., 4023 W. Burnham St., Milwaukee 1, Wis.
 Insto-Gas Corp., 1977 E. Woodbridge St., Detroit 7, Mich.
 Insulating Castable Corp., 130 W. Pleasant Ave., River Rouge 18, Mich.
 Insulating Equipment, Inc., 39 S. LaSalle St., Chicago 3, Ill.
 Insulation & Refractories Co., Williamston, N. Y.
 Insulate Div., Minnesota and Ontario Paper Co., 500 Baker Arcade Bldg., Minneapolis 2, Minn.
 Insul-Mastic Corp. of America, Oliver Bldg., Pittsburgh, Pa.
 Inter-Coastal Paint Co., 15th & Southern R. R., East St. Louis, Ill.
 International Engineering, Inc., 1145 Bolander, Dayton 1, Ohio.
 International Harvester Co., Truck Div., 108 N. Michigan, Chicago, Ill.
 International Heater Co., 101 Park Av., Utica 2, N. Y.
 International Mfg. Co., 600 E. Grand, Oklahoma City, Okla.
 International Metal Hose Co., 4445 Humboldt St., Detroit 8, Mich.
 International Metal Products Co., P. O. Box 1712, Phoenix, Ariz.
 International Molded Plastics, Inc., 4387 W. 35th St., Cleveland 9, O.
 International Nickel Co., Inc., 67 Wall St., New York 5, N. Y.
 International Oil Burner Co., Park & Spring, St. Louis 10, Mo.
 International Register Co., 2620 W. Washington Blvd., Chicago 12, Ill.
 International Rolling Mill Products Corp., 5000 S. Whipple St., Chicago, Ill.
 International Sales Co., 2045 Evans Av., San Francisco 24, Calif.
 International Steel Co., 1556 Edgar St., Evansville, Ind.
 International Vermiculite Co., Girard, Ill.
 Interstate Drop Forge Co., 4051 N. 27th St., Milwaukee, Wis.
 Interstate Machinery Co., Inc., 1433 W. Pershing Road, Chicago 9, Ill.
 Interstate Sales Co., 123 E. 18th St., New York 3, N. Y.

Iona Ventilator Co., Inc., 2821-29 W. Dauphin St., Philadelphia 32, Pa.
 Iowa Paint Mfg. Co., Inc., 118-20 Eighth St., Des Moines 9, Iowa.
 Iron City Chemical Co., Glycolator Div., Valencia, Pa.
 Iron Fireman Mfg. Co., 3121 W. 106th St., Cleveland 11, Ohio.
 Iron-Hide Sales Co., Dock St., Matawan, N. J.
 Iron Lung Ventilator Co., 5403 Prospect Ave., Cleveland 3, Ohio.
 Irvington Varnish & Insulator Div., Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.

J

J & J Sheet Metal Co., 23836 Hoover Rd., Van Dyke, Mich.
 Jabsco Pump Co., 2031 N. Lincoln, Burbank, Calif.
 Jack & Heintz, Inc., 17600 Broadway, Cleveland 1, Ohio.
 Jackson & Church Co., 321 N. Hamilton St., Saginaw 65, Mich.
 Jaco Devices Co., 98 High St., Hingham, Mass.
 James Regulator Co., Inc., 2nd & Pine Sts., Hamburg, Pa.
 Jamestown Metal Corp., 104 Blackstone Av., Jamestown 6, N. Y.
 Jan-Air Inc., Richmond, Ill.
 Jefferson Electric Co., 25th & Madison St., Bellwood, Ill.
 Jefferson Machine Tool Co., Fourth, Cutter & Sweeney Sts., Cincinnati 3, Ohio.
 Jenn Air Products Co., 515 Architects Bldg., Indianapolis 4, Ind.
 Jessop Steel Co., Washington, Pa.
 Jessup Signal Gauge Co., Rt. 1, Box 442, Excelsior, Minn.
 Jet-Heat, Inc., 152 S. Van Brunt St., Englewood, N. J.
 Jettromaire, Inc., 1100 E. Warrington, Pittsburgh 10, Pa.
 Johns-Manville, 22 E. 40th St., New York 16, N. Y.
 Johnson Co., S. T., 940 Arlington Ave., Oakland 8, Calif.
 Johnson Corp., The, 806 Wood St., Three Rivers, Mich.
 Johnson Gas Appliance Co., 520 "E" Av., N. W., Cedar Rapids, Iowa.
 Johnson Heater Corp., 1 Winnisimmet St., Chelsea, Mass.
 Johnson, Inc., William, Brenner & Kent Sts., Newark 3, N. J.
 Johnson Ladder Shoe Co., Eau Claire, Wis.
 Johnson Machine & Press Corp., 620 W. Indiana Av., Elkhart, Ind.
 Johnson Mfg. Co., Inc., Mount Vernon, Iowa.
 Johnson Service Co., 507 E. Michigan St., Milwaukee, Wis.
 Johnston & Chapman Co., 2925 Carroll Ave., Chicago 12, Ill.
 Johnston Foil Mfg. Co., 6100 S. Broadway, St. Louis 11, Mo.
 Johnston Gas Furnace Corp., Ltd., 11847 Vose St., North Hollywood, Calif.
 Jones & Laughlin Steel Corp., 3 Gateway Center, Pittsburgh 30, Pa.
 Jones Foundry & Machine Co., W. A., 4401 W. Roosevelt Rd., Chicago 24, Ill.
 Jordan & Co., Inc., Paul R., 311 E. South St., Indianapolis 25, Ind.
 Jordon Refrigerator Co., Inc., 58th St. & Grays Ave., Philadelphia 43, Pa.
 Joy Mfg. Co., Oliver Bldg., Pittsburgh 22, Pa.
 Jungers Stove & Range Co., Grafton, Wis.
 Junior Co., J. C., 444 E. 63rd St., Kansas City, Mo.
 Juniper Elbow Co., Inc., 72-15 Metropolitan Av., Middle Village, L. I., N. Y.
 Justrite Mfg. Co., 2061 N. Southport Ave., Chicago, Ill.

K

K-G Equipment Co. (Inc.), 1744 Lehigh St., Allentown, Pa.
 Kaiser Aluminum & Chemical Corp., 1924 Broadway, Oakland 12, Calif.
 Kalamazoo Furnace & Appliance Mfg. Co., Rochester Ave., Kalamazoo, Mich.
 Kane & Roach, Inc., Niagara & Shonnard Sts., Syracuse 4, N. Y.
 Katelman Foundry & Mfg. Co., Third Av. & Eleventh St., Council Bluffs, Iowa.
 Kauffman Air Conditioning Corp., 4505 Olive St., St. Louis 8, Mo.
 Kaufman Co., H. J., 13215 Roselawn Ave., Detroit 4, Mich.
 Kaustine Furnace & Tank Corp., 1492 Washington Ave., Perry, N. Y.
 Kawneer Co., Niles, Mich.
 Keasbey & Mattison Co., Butler Av., Ambler, Pa.
 Keasbey Co., Robert A., 139 W. 19th St., New York 11, N. Y.
 Keckley Co., O. C., 400 W. Madison St., Chicago 6, Ill.
 Kehm Co., 5000 S. Halsted St., Chicago, Ill.
 Keith Furnace Co., Dean Av., at E. 26th, Des Moines 17, Iowa.
 Keller Tool Co., P. O. Box 268, Grand Haven, Mich.
 Kenco Mfg. Co., 5211 Telegraph Rd., Los Angeles 22, Calif.

Ken-Joy Gas Burner Co., 3231 W. National Av., Milwaukee 13, Wis.
 Kennmore Machine Products, Inc., Lyons, N. Y.
 Kennametal Inc., Latrobe, Pa.
 Kennard Corp., 1819 S. Hanley Rd., St. Louis 17, Mo.
 Kensico Tube Co., Mt. Kisco, N. Y.
 Kent Co., Inc., 435 Canal St., Rome, N. Y.
 Kerentoff, G. L., 2218 Reading Road, Cincinnati 2, Ohio.
 Kerner Incinerator Div., Morse-Boulger Destructor Co., 205 E. 42nd St., New York 17, N. Y.
 Kerotest Mfg. Co., 2525 Liberty Av., Pittsburgh 22, Pa.
 Kester Solder Co., 4201 Wrightwood Av., Chicago 39, Ill.
 Kett Tool Co., 5 E. 3rd St., Cincinnati 2, O.
 Keystone Asphalt Products Co., 101 E. Ontario St., Chicago 11, Ill.
 Keystone Flashing Co., 2310 N. 28th St., Philadelphia 32, Pa.
 Kidder Mfg. Co., Inc., J. F., 426 Colchester Av., Burlington, Vt.
 Kilbury Mfg. Co., Inc., 14529 Hawthorne Blvd., Lawndale, Calif.
 Kilgore, Inc., Westerville, O.
 Killam Gas Burner Co., 260 Broadway, Denver 9, Colo.
 Kimberly-Clark Corp., Neenah, Wis.
 Kindl-Aire Corp., 1480 W. 112th St., Cleveland 2, Ohio.
 Kindt-Collins Co., 12653 Elmwood Ave., Cleveland 11, Ohio.
 King Co., Box 178, Owatonna, Minn.
 King Metal Co., 414 N. W. Fourth St., Oklahoma City 3, Okla.
 King Refrigerator Co., 7602 Woodhaven Blvd., Glendale 27, N. Y.
 Kingsley Mfg. Co., 420 Howard Ave., New Haven, Conn.
 Kingston Products Corp., Tipton Dr., Tipton, Ind.
 King Stove and Range Co., Sheffield, Ala.
 Kirk & Blum Mfg. Co., 3120 Forrer St., Cincinnati 9, O.
 Kirk & Son, Inc., Morris P., 2717 S. Indiana St., Los Angeles 23, Calif.
 Kirsch Co., Refrigeration Div., Sturgis, Mich.
 Kisco Boiler & Engineering Co., 2414 Dekalb St., St. Louis 4, Mo.
 Klauer Mfg. Co., 9th & Washington St., Dubuque, Iowa.
 Kleenair Furnace Co., 5329 N. E. Sandy Blvd., Portland 13, Ore.
 Kleen-Heat, Inc., 1829 Carroll Av., Chicago 12, Ill.
 Kleer-Kleen Mfg. Co., 140 Orchard Ave., Hayward, Calif.
 Klem Chemicals, Inc., 14401 Lanson Av., Dearborn, Mich.
 Klenk's Aviation Snips, 107 E. 5th St., Wilmington, Del.
 Kling Bros. Engineering Works, 1320 N. Kostner Ave., Chicago 51, Ill.
 Klipfel Mfg. Co., 1075 Lincoln Ave., Hamilton, Ohio.
 Kloppenborg Aluminum Foundry, 211 Marquette St., Davenport, Iowa.
 Knights Co., James, Sandwich, Ill.
 Knowles Mushroom Ventilator Co., 160 Bellevue Ave., Upper Montclair, N. J.
 Koch Refrigerators, Inc., North Kansas City, Mo.
 Kolb Refractories Co., Meadow & Jackson Sts., Philadelphia, Pa.
 Kol-Master Corp., Oregon, Ill.
 Kool Air Engineering Co., 1388 Fairfax Dr., San Bernardino, Calif.
 Koolvent Metal Awning Corp., of America, P. O. Box 9536, Pittsburgh 23, Pa.
 Koppers Co., Inc., Tar Products Div., Koppers Bldg., Pittsburgh 19, Pa.
 Korfund Co., 48-01-A 32nd Pl., Long Island City 1, N. Y.
 Ko-Z-Aire Products, Inc., Red Oak, Iowa.
 Kraissl Co., Inc., Terhune & Williams Aves., Hackensack, N. J.
 Kramer Bros. Foundry Co., 17 Dell St., Dayton 4, Ohio.
 Kramer Trenton Co., N. Olden & Breunig Ave., Trenton 3, N. J.
 Kraus Mfg. Co., Chas. E., 122 S. 8th St., Louisville 2, Ky.
 Kresky Mfg. Co., Inc., Second & H Sts., Petaluma, Calif.
 Kresno-Stamm Co., 345 Commercial Ave., Palisades Park, N. J.
 Krueger Air Conditioning Co., 19 E. Rillito St., Tucson, Ariz.
 Krueger Sentry Gauge Co., Green Bay, Wis.

L

Laclede-Christy Co., 310 S. Michigan Av., Chicago 4, Ill.
 Laclede Steel Co., Arcade Bldg., St. Louis 1, Mo.
 Laco Oil Burner Co., Inc., 238 Union St., Griswold, Iowa.
 LaCrosse Steel Roofing & Corrugating Co., 227 Jay St., LaCrosse, Wis.
 Laharco Industries, 721 2nd Ave., N., Minneapolis 5, Minn.
 Lake Chemical Co., 3052 W. Carroll Ave., Chicago 12, Ill.
 Lakewood Engineering & Mfg. Co., 1756 W. Lake St., Chicago 12, Ill.
 Lamb Electric Co., 627 Lake St., Kent, Ohio.
 Lamb & Ritchie Co., 250 Albany St., Cambridge 39, Mass.
 Lammert & Mann Co., Wood & Walnut Sts., Chicago 12, Ill.
 Lamson Mobilift Corp., 1604 S. W. 10th Ave., Portland 1, Ore.
 Landis & Gyr, Inc., 45 W. 45th St., New York 36, N. Y.

Lane Shur-Grip Tool Co., 1420 S. Michigan Ave., Chicago 3, Ill.
 Langsenkamp Co., F. H., 229 E. South St., Indianapolis 25, Ind.
 Lapeer Mfg. Co., 1144 W. Baltimore, Detroit 2, Mich.
 Larkin Coils, Inc., 519 Memorial Dr., S. E., Atlanta 1, Ga.
 Lastik Products Co., Inc., 203 Iroquois Bldg., Pittsburgh 13, Pa.
 Lau Blower Co., 2005 Home Av., Dayton 7, Ohio.
 Lawson Mfg. Co., Box 133, New Kensington, Pa.
 Less Co., H. Leslie, Monona, Iowa.
 Ledcote Products Co., 35-01 Vernon Blvd., Long Island City 1, N. Y.
 Lee Co., K. O., Congress at 1st, Aberdeen, S. Dak.
 Lee Corporation, P. O. Box 1801, Wilmington, Del.
 Lee & Son Co., Thomas, 128-132 W. Second St., Cincinnati 2, Ohio.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Leeson Air Conditioning Corp., 14631 Meyers Rd., Detroit 27, Mich.
 Lehigh Fan & Blower Co., 730 N. 17th St., Allentown, Pa.
 Lehigh Mfg. Co., P. O. Box 1418, Lancaster, Pa.
 Lehon Co., Madison at 25th Ave., Bellwood, Ill.
 Leisur-Maid Mfg. Corp., 338 Wealthy St., S. W., Grand Rapids 3, Mich.
 Leland Electric Co., Div. American Machine & Foundry Co., 1501 Webster St., Dayton 1, Ohio.
 Lenk Mfg. Co., 30-38 Cummington St., Boston 15, Mass.
 Lennox Furnace Co., 200 S. 12th Ave., Marshalltown, Iowa; 1705 Olentangy River Rd., Columbus, Ohio; 400 N. Midler Av., Syracuse, N. Y.
 Leslie Welding Co., Inc., 2943 Carroll Ave., Chicago 12, Ill.
 Levow, David, 308 W. 20th St., New York 11, N. Y.
 Lewellen Mfg. Co., Columbus, Ind.
 Lewin-Mathes Co., Lewin Metals Div., 12th & Chateau Sts., St. Louis 2, Mo.
 Lexsuo, Inc., 4815 Lexington Ave., Cleveland 3, Ohio.
 L'Hommedieu & Sons Co., Chas. F., 4521 Ogden Av., Chicago 23, Ill.
 Libbey-Owens-Ford Glass Co., 608 Madison Ave., Toledo 3, Ohio.
 Libert Machine Co., 324 N. Roosevelt St., Green Bay, Wis.
 Liberty Combustion Corp., 240 Court St. Rd., P. O. Box 300, Syracuse 1, N. Y.
 Lignum-Vitae Products Corp., 906 Boyd Av., Jersey City, N. J.
 Lillie-Hoffmann Cooling Towers, Inc., 4239 Duncan Ave., St. Louis 10, Mo.
 Lima Electric Motor Co., The, Dept. 10, Lima, O.
 Lima Register Co., 651 N. Baxter St., Lima, Ohio.
 Lincoln Brass Works, 2067-12th St., Detroit, Mich.
 Lincoln Electric Co., 22801 St. Clair Av., Cleveland 17, Ohio.
 Lincoln Furnace Co., Inc., 230-244 Goffle Rd., Hawthorne, N. J.
 Lincoln Machine Co., Livermore Falls, Maine.
 Linde Air Products Co., Div. Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Lindsay Structure, Inc., 3000 W. Dempster St., Skokie, Ill.
 Link-Belt Co., 307 N. Michigan Ave., Chicago 1, Ill.
 Lion Fastener, Inc., Honeoye Falls, N. Y.
 Lipman Refrigeration Div., Yates-American Machine Co., Beloit, Wis.
 Liquid Carbonic Corp., Industrial Gas Div., 3100 S. Kedzie Av., Chicago 23, Ill.
 Liquidepth Indicators, Inc., 43-22 Tenth St., Long Island City 1, N. Y.
 Liquidometer Corp., Skillman Av., 36th and 37th Sts., Long Island City 1, N. Y.
 Lisbon Hoist and Crane Co., Div. Wright File Co., Lisbon, Ohio.
 Litman, Morris, 39 Cliftwood St., Springfield, Mass.
 Little Burner Co., Inc., H. C. Woodland Ave. & Du Bois St., San Rafael, Calif.
 Littleford Bros., Inc., 453 E. Pearl St., Cincinnati 2, Ohio.
 Little Giant Vaporizer Co., 5101 Classen Blvd., Oklahoma City 6, Okla.
 Little Janitor Furnace Clock Co., 621 Broadway, New York, N. Y.
 Livingston, Inc., Kalamazoo Av., Marshall, Mich.
 Locke Regulator Co., Walter and Osborne Sts., Salem, Mass.
 Locke Stove Co., 114 W. 11th St., Kansas City 6, Mo.
 Lockformer Co., 4615 Roosevelt Rd., Chicago 30, Ill.
 Lockhart Mfg. Corp., 6350 E. Davison, Detroit 12, Mich.
 Lockport Mills Inc., Lockport, N. Y.
 London Chemical Co., 325 W. 32nd St., Chicago, Ill.
 Lonergan Mfg. Co., 704 Clark St., Albion, Mich.
 Lord Mfg. Co., 1635 W. 12th St., Erie, Pa.
 Los Angeles Gas Appliance Co., Inc., 3816 Medford St., Los Angeles 33, Calif.
 Los Angeles Sheet Metal Mfg. Co., Inc., 900 E. Ninth St., Los Angeles 21, Calif.
 Loudon Machinery Co., 1454 Broadway, Fairfield, Iowa.
 Louvra Corp., 1010 Jeanette Ave., Union, N. J.
 Lovejoy Flexible Coupling Co., 4841 Lake St., Chicago 44, Ill.

Lovekin Water Heater Co., 21-43 Laurel St., Philadelphia 23, Pa.
 Lucas & Co., Inc., John, 1617 Pennsylvania Blvd., Philadelphia, Pa.
 Lufkin Rule Co., Saginaw, Mich.
 Lug-All Co., The, 331 E. Lancaster Ave., Wynnewood, Pa.
 Lukens Metal Co., Thos. F., Hedley & Bath Sts., Philadelphia 37, Pa.
 Lukens Steel Co., 308 S. First Ave., Coatesville, Pa.
 Lumm Co., A. H., 2512 Albion St., Toledo 6, Ohio.
 Lundt, Inc., Ernest C., Route 46, P. O. Box 216, Little Falls, N. J.
 Lustrik, Inc., 3324 Frankford Av., Philadelphia 4, Pa.
 Luty Furnace Mfg. Co., 8747 Lyndon Ave., Detroit 38, Mich.
 Lyman Co., H. B., Southampton, Hampshire Co., Mass.
 Lynn Products Co., 17 Willow St., Lynn, Mass.
 Lyon, Conklin & Co., Inc., Race & McComas Sts., Baltimore 30, Md.
 Lyon Metal Products, Inc., 740 Madison Av., Aurora, Ill.
 Lyons, Edward W., 115 W. Glenaven Ave., Youngstown 7, O.

M

MB Mfg. Co., Inc., 1060 State St., New Haven 11, Conn.
 M & E Mfg. Co., 2581 W. Winthrop, Indianapolis 5, Ind.
 Machine Rebuilding Co., 2738 Chene St., Detroit 7, Mich.
 Machinery Liquidating Co., 2663 Michigan Ave., Detroit 16, Mich.
 Madden Brass Products Co., P. O. Box 444, Aurora, Ill.
 Madden Corp., The, 1543 Morse Ave., Chicago, Ill.
 Made-Rite Co., Inc., 10th & Monroe St., Newport, Ky.
 Magic Chef, Inc., 1641 S. Kingshighway Blvd., St. Louis 10, Mo.
 Magic Chemical Co., 121 Crescent St., Brockton 2, Mass.
 Magic Servant Products Co., 15211 Joy Rd., Detroit 28, Mich.
 MaGirl Foundry & Furnace Co., 413 E. Oakland Ave., Bloomington, Ill.
 Magnetool Div., Multifinish Mfg. Co., 26341 W. Eight Mile Rd., Detroit 19, Mich.
 Magnex Corp., 90-28 Van Wyck Expressway, Jamaica 18, N. Y.
 Magnus Chemical Co., Garwood, N. J.
 Mahl Mfg. Co., 3081 Slauson Ave., Huntington Park, Calif.
 Mahon Co., R. C., 6565 E. 8 Mile Rd., Detroit 34, Mich.
 Maid-O'-Mist Inc., 3217 N. Pulaski Rd., Chicago 41, Ill.
 Majestic Co., Inc., 733 Erie St., Huntington, Ind.
 Majestic Major Appliance Corp., Lima, O.
 Malco Products, 4224 26th Ave., S., Minneapolis, Minn.
 Mall Tool Co., 7740 South Chicago Av., Chicago 19, Ill.
 Malleable Iron Fittings Co., Lock Box 231, Branford, Conn.
 Malm Mfg. Co., 1565 Como Ave., St. Paul, Minn.
 Mammoth Furnace Co., 509 Vandalia St., St. Paul 4, Minn.
 Manhattan Machine Corp., The, Box 724, Manchester, Conn.
 Manhattan Perforated Metal Co., Inc., 43-17 37th St., Long Island City 1, N. Y.
 Manheim Mfg. and Belting Co., Manheim, Pa.
 Manning Co., Charles E., 4135 Brownsville Rd., Pittsburgh 27, Pa.
 Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.
 Maple City Furnace Co., 605 S. Main St., Monmouth, Ill.
 Maplewood Machinery Co., 2634 Fullerton Ave., Chicago 47, Ill.
 Marathon Electric Mfg. Corp., Cherry & Randolph Sts., Wausau, Wis.
 Marble-Card Electric Corp., Gladstone, Mich.
 Marco Industries, Inc., 786 Terrace Blvd., DePew, N. Y.
 Marietta Metal Products Corp., Marietta, Pa.
 Marine Electrolysis Eliminator Co., 617 Dearborn St., Seattle, Wash.
 Marion Metal Products, Marion, Ohio.
 Markal Co., 3052 W. Carroll Ave., Chicago 12, Ill.
 Market Forge Co., Everett 49, Mass.
 Marley Co., The, 222 W. Gregory Blvd., Kansas City 14, Mo.
 Mario Coil Co., 6135 Manchester Av., St. Louis 10, Mo.
 Marquart Mfg. Co., 1241 High St., Oakland 1, Calif.
 Marquette Appliances, Inc., 307 E. Hennepin Ave., Minneapolis 14, Minn.
 Marquette Mfg. Co., Inc., 307 E. Hennepin Ave., Minneapolis 14, Minn.
 Marshall Furnace Co., Dobbins & Hanovers Sts., Marshall, Mich.
 Marshalltown Mfg. Co., 901 E. Nevada St., Marshalltown, Iowa.
 Marsh Corp., Jas. P., Skokie, Ill.
 Marsh Lumber Co., Inc., 535-611 Tuscarawas Ave., Dover, Ohio.
 Martens & Stormoen Co., 231 Willard St., West Quincy 69, Mass.
 Martin Fan & Blower Co., 4634 W. 21st Place, Chicago 50, Ill.
 Martin Co., Inc., J. O., 637 Minna St., San Francisco 3, Calif.
 Martin Stamping & Stove Co., Huntsville, Ala.

Marvair Div., Muncie Gear Works, Inc., 700 N. Wysor, Muncie, Ind.
 Marvin Mfg. Co., 3071 E. 12th St., Los Angeles 23, Calif.
 Mason Machine Co., Inc., 817 E. King St., York, Pa.
 Master Appliance Mfg. Co., 4th & Ontario St., Racine, Wis.
 Master-Craft Supply Co., Inc., 79 W. Broad St., Haverstraw, N. Y.
 Master Electric Co., 126 Davis Av., Dayton 1, Ohio.
 Master Products Co., Inc., 7000 S. Wentworth Av., Chicago 21, Ill.
 Matt Coil-Less Burner Co., 4015 W. Lake St., Chicago 24, Ill.
 Matthiessen & Hegeler Zinc Co., LaSalle, Ill.
 Maurer Engineering 2525 Colfax St., Evanston, Ill.
 Maurey Mfg. Corp., 2915 S. Wabash Av., Chicago 16, Ill.
 Maxant Button & Supply Co., 117 S. Morgan St., Chicago 7, Ill.
 Maxitrol Co., 12200 Beech Rd., Detroit 39, Mich.
 Mayflower Air Conditioners, Inc., Duluth Av. & E. Seventh St., St. Paul 6, Minn.
 Mayne Products Co., 324 Harries Bldg., Dayton 2, Ohio.
 Mayson Mfg. Co., 4332 Horatio St., Detroit 10, Mich.
 Maysteel Products, Inc., 740 N. Plankinton Ave., Milwaukee 3, Wis.
 Maze Co., W. H., Peru, Ill.
 McCabe Powers Auto Body Co., 5900 N. Broadway, St. Louis, Mo.
 McCollum Hoist & Mfg. Co., 721 Rogers St., Downers Grove, Ill.
 McCord Corp., 2587 E. Grand Blvd., Detroit 11, Mich.
 McCorkle Co., D. H., Sixth & Bancroft Way, Berkeley 2, Calif.
 McCoy Products Co., 420 Felt Blvd., Salt Lake City 1, Utah.
 McDaniel Mfg. Co., Inc., 1012 Powhattan St., Dallas 2, Texas.
 McDonald Mfg. Co., A. Y., 12th & Pine Sts., Dubuque, Ia.
 McDonnell & Miller, Inc., 3500 N. Spaulding Av., Chicago 18, Ill.
 McGraw Electric Co., Clark Div., 5201 W. 65th St., Chicago 38, Ill.
 McIntire Co., Okner Parkway, P. O. Box 5, Livingston, N. J.
 McKay Co., 1005 Liberty Ave., Pittsburgh 22, Pa.
 McKee Furnace Co., 3861 Freemont Av., N., Minneapolis 12, Minn.
 McLarty Systems, 2600 Dickman, Battle Creek, Mich.
 McLean Engineering Laboratories, P. O. Box 531, Princeton, N. J.
 McLouth Steel Corp., 300 S. Livernois, Detroit, Mich.
 McPherson Furnace & Supply Co., Box 7706, Portland 12, Ore.
 McQuay, Inc., 1600 Broadway, N. E., Minneapolis 13, Minn.
 McQuay-Norris Mfg. Co., Southwest Ave. at Marconi, St. Louis, 10, Mo.
 Meadows, Inc., W. R., 2 Kimball St., Elgin, Ill.
 Meier Electric & Machine Co., Inc., 3525 E. Washington St., Indianapolis 7, Ind.
 Melaway Corp., Box 248, Brandon, Wis.
 Melchior, Armstrong, Dessau Co., Ridgefield, N. J.
 Melco Products, Inc., 301 5th Ave., S., Minneapolis, Minn.
 Mel-Gauge Co., P. O. Box 126, Station A, New Haven, Conn.
 Merchandising and Mfg. Associates, Inc., 53 North Duke St., Lancaster, Pa.
 Mercoird Corp., 4201 Belmont Av., Chicago 41, Ill.
 Meriam Instrument Co., 10920 Madison Av., Cleveland 2, Ohio.
 Metal Carrier Corp., 1750 Alpine Ave., N. W., Grand Rapids 4, Mich.
 Metal Fabricators, Inc., P. O. Box 3232, Charlotte 3, N. C.
 Metalloy Products Co., 1351 E. 17th St., Los Angeles, Calif.
 Metalmen, Inc., 2100 W. Grand Ave., Chicago 12, Ill.
 Metals Div., Olin Mathieson Chemical Corp., East Alton, Ill.
 Metal & Thermt Corp., 100 E. 42nd St., New York 17, N. Y.
 Metro Metal Mfg. Co., Holt, Mich.
 Metromatic Mfg. Co., 21 Henderson St., Everett 49, Mass.
 Metropolitan Refining Co., Inc., 50-23 23rd St., Long Island City 1, N. Y.
 Metzger Machine & Engineering Co., 6770 N. 43rd St., Milwaukee 9, Wis.
 Meyer & Bro. Co., F., 308 S. Commercial St., Peoria, Ill.
 Meyer Furnace Co., 1300 S. Washington St., Peoria 1, Ill.
 Michigan Steel Tube Products Co., Holbrook & Buffalo Aves., Detroit 12, Mich.
 Micro Products Co., 20 N. Wacker Dr., Chicago 6, Ill.
 Microtron Corp., P. O. Box 2092, Charlotte, N. C.
 Mid-America Steel Warehouses, 1000 W. 50th St., Chicago 9, Ill.
 Midco Register Corp., 1059 Grand Av., St. Paul 5, Minn.
 Mid-Continent Metal Products Co., 1960 Clybourn Av., Chicago 14, Ill.
 Midland Paint & Varnish Co., 3801 E. 91st St., Cleveland 5, Ohio.
 Mid-States Welder Mfg. Co., 6025 S. Ashland Ave., Chicago 36, Ill.

Midwest Automatic Control Co., 510 Third St., Des Moines 9, Iowa.
 Midwest Mfg. Co., 2205 Haskell Ave., Lawrence, Kans.
 Miles Heating Enterprises, 1972 Ford Dr., Cleveland, O.
 Miller & Doing, 89 Adams St., Brooklyn 1, N. Y.
 Miller Electric Mfg. Co., Inc., 718 S. Bounds St., Appleton, Wis.
 Miller-Harris Instrument Co., 601 E. Ogden Av., Milwaukee 2, Wis.
 Miller Products Co., 3046 N. Cedar Rd., Lansing 9, Mich.
 Millers Falls Co., 57 Wells St., Greenfield, Mass.
 Mills Corp., Elmer E., 2930 N. Ashland Ave., Chicago 13, Ill.
 Milwaukee Brush Mfg. Co., 2236 N. 30th St., Milwaukee, Wis.
 Milwaukee Electric Tool Corp., 5362 W. State St., Milwaukee 8, Wis.
 Milwaukee Gas Specialty Co., P. O. Box 461, Milwaukee 1, Wis.
 Mine Safety Appliance Co., Braddock, Thomas and Meade Sts., Pittsburgh, Pa.
 Minneapolis-Honeywell Regulator Co., 2726 Fourth Av. S., Minneapolis 8, Minn.
 Minn-Kota Foundry & Mfg. Co., P. O. Box 822, Fargo, N. Dak.
 Miracle Adhesives Corp., 214 E. 53rd St., New York, N. Y.
 Miracle Rod Co. of Illinois, 612 N. Michigan Ave., Chicago 11, Ill.
 Misener Mfg. Co., Inc., 202-8 Walton St., Syracuse 2, N. Y.
 Mission Appliance Corp., 12611 S. Crenshaw Blvd., Hawthorne, Calif.
 Mitchell & Co., Inc., W. K., 29th & Ellsworth, Philadelphia 46, Pa.
 Mitchell Mfg. Co., 2525 N. Clybourn Ave., Chicago, Ill.
 Modern Controls Corp., 24400 Mound Rd., Centerline, Mich.
 Modern Die & Machine Co., 166 Pleasant St., Boston 25, Mass.
 Modern Engineering Co., 3411 Pine Blvd., St. Louis 3, Mo.
 Modern Materials Co., 46330 W. 7 Mile Rd., Northville, Mich.
 Modine Mfg. Co., 1580 DeKoven Ave., Racine, Wis.
 Moeller Instrument Co., 132nd St. & 89th Av., Richmond Hill 18, N. Y.
 Moeschl-Edwards Corrugating Co., Inc., P. O. Box 1115, Cincinnati, Ohio.
 Molloy Machine Corp., 3445 N. Western Ave., Chicago, Ill.
 Monarch Alloys, 503 N. Chestnut St., Ravenna, Ohio.
 Monarch Mfg. Works, Inc., 2501 E. Ontario St., Philadelphia 34, Pa.
 Moncrief Furnace Co., P. O. Box 1673, Atlanta 1, Ga.
 Moncrief Furnace & Mfg. Co., Inc., 3903 Main St., Dallas 1, Texas.
 Moncrief Lenoir Mfg. Co., 2103 Lyons, Houston, Tex.
 Monitor Controller Co., Div. of Ultrasonic Corp., 640 Memorial Dr., Cambridge, Mass.
 Monogram Products Co., Inc., 731 N. 55th St., Philadelphia 4, Pa.
 Montag Stove & Furnace Works, 2011 N. Columbia Blvd., Portland 17, Ore.
 Moore Co., Box 149, St. Louis 5, Mo.
 Moreheat Distribution Co., 5608 Stewart, Cincinnati, O.
 Morey, Dan, 814-816 S. Robertson Blvd., Los Angeles 35, Calif.
 Mor-Flo Heater Corp., 2174 E. 76th St., Cleveland 3, O.
 Morris Paint & Varnish Co., 27th & Douglas Sts., Omaha, Nebr.
 Morris Sheet Metal Works, 635 W. Mound St., Columbus 23, O.
 Morrison Products, Inc., 16816 Waterloo Rd., Cleveland 10, Ohio.
 Morrison Steel Products, Inc., 601 Amherst St., Buffalo 7, N. Y.
 Morse-Smith-Morse Co., The, 165 Dexter Ave., Watertown 72, Mass.
 Mortell Co., J. W., Hobbie Av. & Big Four R.R., Kankakee, Ill.
 Mortemp Div., Mechanical Products Co., 1727 First Ave., S., Seattle 4, Wash.
 Mortemp Products Corp., Box 386, Rockville, Md.
 Morton Engineering Services, Paul S., 609 Bangor Rd., Lawrence, Mich.
 Moser & Son Mfg. Co., 227 E. Washington St., Bluffton, Ind.
 Mountain States Equipment Co., 1238 Speer Blvd., Denver 4, Colo.
 Mt. Hawley Mfg. Co., Mt. Hawley Airport, Peoria 4, Ill.
 Mt. Vernon Furnace & Mfg. Co., P. O. Box 213, Mt. Vernon, Ill.
 Muckle Mfg. Co., Owatonna, Minn.
 Mueller Brass Co., 1925 Lapeer Av., Port Huron, Mich.
 Mueller Climatrol, 2005 W. Oklahoma Ave., Milwaukee 15, Wis.
 Mueller Co., 512 W. Cerro Gordo St., Decatur, Ill.
 Mulkey Co., J. F., W. 8 Mile & Telegraph Rds., Detroit 19, Mich.
 Multi-Therm Mfg. Co., Inc., 11637 Linwood, Detroit 6, Mich.
 Muncie Burner Mfg. Co., 27293 Eureka Rd., Romulus, Mich.
 Muncie Gear Works, Inc., 700 N. Wysor, Muncie, Ind.
 Mundet Cork Corp., 7101 Tonnelle Ave., North Bergen, N. J.
 Mundt & Sons, Charles, 53 Fairmont Av., Jersey City 4, N. J.
 Munton Mfg. Co., 9400 Belmont Av., Franklin Park, Ill.

Murray Co. of Texas, Inc., 3200 Canton St., Dallas 1, Texas.
 Mustee Heater Co., 3409 Superior Av., Cleveland 14, Ohio.
 Mutual Liquid Gas & Equipment Co., 3600 W. Imperial Highway, Inglewood, Calif.
 Myers Electric Co., Inc., 209 First Av., Pittsburgh 22, Pa.

N

Nat Corp., 2710 McGee Trafficway, Kansas City 8, Mo.
 National Air Conditioning Inc., 221 Central Ave., Johnstown, Pa.
 National Airoil Burner Co., Inc., 1284 E. Sedgley Av., Philadelphia 34, Pa.
 National Appliance Co., 4814 W. Vernor Hwy., Detroit 9, Mich.
 National Appliances, Inc., P. O. Box 173, New Kensington, Pa.
 National Cork Co., 1 Engle St., Englewood, N. J.
 National Cylinder Gas Co., 840 N. Michigan Av., Chicago 11, Ill.
 National Electric Welding Machines Co., 1846 N. Trumbull St., Bay City, Mich.
 National Engineering & Mfg. Co., 16th & Lamie St., Sedalia, Mo.
 National Engineering Products, Inc., Commerce & Savings Bldg., Washington, D. C.
 National Foundry & Furnace Co., Station "B," Dayton 7, Ohio.
 National Fuel Conservation Co., Inc., 237 Battle Av., White Plains, N. Y.
 National Gas Equipment Co., Inc., P. O. Box 122, Denison, Tex.
 National Grille & Register Co., 3169 E. 80th, Cleveland, O.
 National Gypsum Co., 525 Delaware Av., Buffalo 2, N. Y.
 National Heater Co., 2180 Cleora Av., St. Paul 4, Minn.
 National Lead Co., 111 Broadway, New York 6, N. Y.
 National Lock Co., 1902 Seventh St., Rockford, Ill.
 National Mfg. Corp., 151 Fillmore Av., Tonawanda, N. Y.
 National Metal Fabricators, 2136 S. Sawyer Av., Chicago 23, Ill.
 National Modulation Co., 2720 N. Hy. 61, St. Paul 9, Minn.
 National Pipe Bending Co., 122 River St., New Haven 13, Conn.
 National Pneumatic Co., Inc. and Holtzer-Cabot Divs., 125 Amory St., Boston 19, Mass.
 National Radiator Co., 221 Central Ave., Johnstown, Pa.
 National Sheet Metal Co., 1617 Water St., Peru, Ill.
 National Steam Pump Co., 701 W. Johnson St., Upper Sandusky, Ohio.
 National Steel Construction Co., Inc., 301 Water St., Logansport, Ind.
 National Super Service Co., Inc., 1944 N. 13th St., Toledo 2, Ohio.
 National Tube Div., U. S. Steel Corp., 525 William Penn Pl., Pittsburgh 30, Pa.
 Nebel Mfg. Co., P. O. Box 3942, Shaker Sq. Station, Cleveland 20, Ohio.
 Neilson Chemical Co., 6564 Benson St., Detroit 7, Mich.
 Nelson Bros. & Strom Co., 1620 Racine St., Racine, Wis.
 Nelson Industries, 115 E. Carson St., Pittsburgh, Pa.
 Nelson Products, Herman, American Air Filter Co., Inc., 215 Central Ave., Louisville 8, Ky.
 Nelson Stud Welding Div., Gregory Industries, Inc., Toledo Av. & E. 28th St., Lorain, Ohio.
 Nesbitt, Inc., John J., State Rd. & Rhawn St., Philadelphia 36, Pa.
 New Albany Machine Mfg. Co., E. 10th & Water Sts., New Albany, Ind.
 Newark Ladder & Bracket Co., Inc., Walnut & Central Ave., Clark (Rahway), N. J.
 Newcomb-Detroit Co., 5741 Russell St., Detroit 11, Mich.
 New Delphos Mfg. Co., 102 S. Pierce St., Delphos, Ohio.
 Newell & Sons, Irwin, Pa.
 New England Carbide Tool Co., Inc., 60 Brookline St., Cambridge 39, Mass.
 New England Cooling Tower Co., 43 Field St., Quincy 69, Mass.
 New Jersey Zinc Co., 160 Front St., New York 38, N. Y.
 New Monarch Machine & Stamping Co., 406 S. W. 9th St., Des Moines 9, Iowa.
 New Plastic Corp., 1026 N. Sycamore, Hollywood 38, Calif.
 Newport Steel Corp., Newport, Ky.
 New York Belting & Packing Co., 1 Market St., Passaic, N. J.
 New York Blower Co., 3155 Shields Av., Chicago 16, Ill.
 Niagara Blower Co., 405 Lexington Ave., New York 17, N. Y.
 Niagara Machine & Tool Works, 637-697 Northland Av., Buffalo 11, N. Y.
 Niagara Motors Corp., Dunkirk, N. Y.
 Niagara Products Co., 4311 E. Thomas Rd., Phoenix, Ariz.
 Nicework Metal Products Co., Leetsdale, Pa.
 Nichols Wire & Aluminum Co., Davenport, Iowa.
 Niles Rolling Mill Co., Niles, Ohio.
 Noble & Stanton, Inc., 1035 Broadway, Bedford, Ohio.
 Nobur Mfg. Co., 717 N. Victory Blvd., Burbank, Calif.
 Noma Lites, Inc., 55 W. 13th St., New York 11, N. Y.
 Nooter Corp., 1400 S. Second St., St. Louis 4, Mo.

Nord International Corp., P. O. Box 41-N62, Denville, N. J.
 Norge Div., Borg-Warner Corp., Merchandise Mart Plaza, Chicago 54, Ill.
 Norge Heat Div., Borg-Warner Corp., 346 E. South St., Kalamazoo, Mich.
 Norma-Hoffmann Bearings Corp., Stamford, Conn.
 Norman Chemical Co., 470 Cleveland Ave., N., St. Paul 4, Minn.
 Norman Products Co., Inc., 1150 Chesapeake Av., Columbus 12, Ohio.
 Norris-Thermador Corp., 5215 S. Boyle Ave., Los Angeles 58, Calif.
 Norristown Magnesia & Asbestos Co., Washington St. below Ford St., Norristown, Pa.
 North American Mogul Products Co., Standard Building, Cleveland 13, Ohio.
 Northern Blower Co., 6409 Barberton Av., Cleveland 2, Ohio.
 Northern Indiana Brass Co., 935 Plum St., Elkhart, Ind.
 Northern Steel & Stoker Corp., 3100 Prospect Rd., Peoria 4, Ill.
 North Shore Nameplate Co., Inc., Bank of Manhattan Bldg., Bayside, L.I., N.Y.
 Northwest Foundry & Furnace Co., 2345 S. E. Gladstone St., Portland 2, Ore.
 Northwest Lead Co., 2700 16th Av., S. W., Seattle 4, Wash.
 Northwest Metal Products, Inc., 55 Spokane St., Seattle 4, Wash.
 Northwestern Stove Repair Co., 662 W. Roosevelt Rd., Chicago 7, Ill.
 Northmann-Duffke Co., 2740 S. 32nd St., Milwaukee 46, Wis.
 Norwalk Air Conditioning Corp., 138 Water St., South Norwalk, Conn.
 Nugent Furnaces, Thos., 223 E. 80th St., New York 21, N. Y.
 NuSteel Co., 1714 S. Ashland Av., Chicago 8, Ill.
 NuTone, Inc., Madison & Red Bank Rd., Cincinnati, Ohio.
 Nu-Way Corp., The, 2416 Fourth St., Rock Island, Ill.

O

Oakite Products Inc., 19 Rector St., New York 6, N. Y.
 Odyke, Inc., Benjamin P., 447 N. Eighth St., Philadelphia 23, Pa.
 O'Brien Corp., 101 N. Johnson St., South Bend 21, Ind.
 Octagon Ventilator Co., 3828-30 S. Oakley Av., Chicago 36, Ill.
 Ohio Electric Mfg. Co., 5910 Maurice Ave., Cleveland 4, Ohio.
 Ohio Foundry & Mfg. Co., Penn R. R. & Slack St., Steubenville, Ohio.
 Ohio Paper Co., Miamisburg, Ohio.
 Ohio Valley Hardware Co., Inc., 300 Fourth Ave., Evansville 2, Ind.
 Ohio Wire Products Co., 217 N. Tuscarawas Av., Dover, Ohio.
 Ohmer Co., Geo. H., Box 34, Sta. D, Dayton 10, Ohio.
 Ohmlac Paint & Refining Co., 6550 S. Central Av., Chicago 38, Ill.
 Oil Equipment Laboratories, Inc., 456 Bridge St., Elizabeth, N. J.
 Oil Equipment Mfg. Corp., 169 Derby Ave., New Haven, Conn.
 Oilgas Generating Burners, Inc., 410 S. Jefferson St., New Castle, Pa.
 O'Keefe & Merritt Co., 3700 E. Olympic Blvd., Los Angeles 23, Calif.
 Okun Co., A. L., 109-02 Van Wyck Expwy., So. Ozone Park, N. Y.
 Olsen Mfg. Co., The C. A., Filbert St., Elyria, Ohio.
 Olson & Co., Arthur A., Broad and Court Sts., Canfield, Ohio.
 Olympic Radio & Television, Inc., 34-01 38th Ave., Long Island City, N. Y.
 O'Neil-Irwin Mfg. Co., 394 Eighth Ave., Lake City, Minn.
 Oran Co., 2232 S. Third St., Columbus 7, Ohio.
 Original Metal Forming Machine Co., P. O. Box 214, Seattle 11, Wash.
 Ormsby-Osterman Co., 3631 Cass Av., St. Louis 13, Mo.
 Osborn Mfg. Co., 5401 Hamilton Av., Cleveland 14, Ohio.
 Oster Mfg. Co., John, 3055 N. Lydell Ave., Milwaukee 17, Wis.
 O'Sullivan Rubber Corp., Winchester, Va.
 Overhead Heaters, Inc., 1612 Book Bldg., Detroit 26, Mich.
 Overly, Lloyd H., 504 Court St., Maryville, Tenn.
 Overly Mfg. Co., Greensburg, Pa.
 Owens Co., H., 9300 Venice Blvd., Culver City, Calif.
 Owens-Corning Fiberglas Corp., 1930 Nicholas Bldg., Toledo 1, Ohio.

P

Pabco Products Inc., 475 Brannan St., San Francisco 19, Calif.
 Pacific Coast Heater Corp., 330 S. Del Mar Av., San Gabriel, Calif.
 Pacific Gas Heating Co., 2948 Twentieth St., San Francisco 10, Calif.
 Pacific Industrial Mfg. Co., 848 49th Ave., Oakland 1, Calif.

Pacific Lumber Co., 100 Bush St., San Francisco 4, Calif.
 Pacific States Felt & Mfg. Co., Inc., 845 Howard St., San Francisco, Calif.
 Packard-Bell Co., Bellair Room Air Conditioning Div., 12333 W. Olympic Blvd., Los Angeles 64, Calif.
 Packard Electric Div., General Motors Corp., Warren, Ohio.
 Packham Crimper Co., Machine Shop, Mechanics-Burgh, O.
 Packless Metal Hose, Inc., 31-42 Winthrop Ave., New Rochelle, N. Y.
 Page Steel & Wire, Div. American Chain & Cable Co., Inc., Monessen, Pa.
 Paine Co., Fullerton & Westgate Rd., Addison, Ill.
 Paisley Products, Inc., 630 W. 51st St., New York 17, N. Y.
 Palmer Mfg. Corp., 2200 W. Fillmore, Phoenix, Ariz.
 Palmer Thermometers, Inc., 2501 Norwood Av., Norwood, Cincinnati 12, Ohio.
 Palm Mfg. Co., 95 21st Ave., San Mateo, Calif.
 Palo-Myers, Inc., 81-83 Reade St., New York 7, N. Y.
 Panelyte Div., St. Regis Paper Co., 230 Park Ave., New York 17, N. Y.
 Pangborn Corp., 560 Pangborn Blvd., Hagerstown, Md.
 Paragon Elec. Co., 1600 - 12th St., Two Rivers, Wis.
 Paragon Oil Burner Corp., 75 Bridgewater St., Brooklyn 22, N. Y.
 Paramount Supply Co., 2727 N. 48th St., Lincoln 4, Nebr.
 Park City Cornice Works, Inc., 729 Union Av., Bridgeport 7, Conn.
 Parker Appliance Co., 17325 Euclid Av., Cleveland 12, Ohio.
 Parker-Kalon Div., General American Transportation Corp., New York 14, N. Y.
 Parker Rust-Proof Co., 2177 E. Milwaukee Av., Detroit 11, Mich.
 Park Sheet Metal Specialties, 6212 Goodrich Ave., Minneapolis 16, Minn.
 Partlow Corp., New Hartford, N. Y.
 Patco Mfg. Co., 231 N. Broad St., Philadelphia, Pa.
 Patrol Valve Co., 2310 Superior Ave., N. E., Cleveland 14, Ohio.
 Patten Co., J. V., 550 DeKalb Av., Sycamore, Ill.
 Patterson-Sargent Co., St. Clair & 38th St., Cleveland 14, Ohio.
 Paul-Lewis Laboratories, Inc., 4253 N. Port Washington Rd., Milwaukee 12, Wis.
 Paul Valve Corp., 683 Third Ave., New York 17, N. Y.
 Payne Beverly Mfg. Co., 9242 Beverly Blvd., Beverly Hills, Calif.
 Payne Furnace Div., Affiliated Gas Equipment, Inc., 801 Royal Oak Ave., Monrovia, Calif.
 Peck, Stow & Wilcox Co., Center St., Southington, Conn.
 Pecora Paint Co., 4th St. & Erie Av., Philadelphia 40, Pa.
 Pedrick Tool & Machine Co., 3640 N. Lawrence St., Philadelphia 40, Pa.
 Peer, Inc., 1440 Milton St., Benton Harbor, Mich.
 Peerless Electric Co., 1401 W. Market St., Warren, Ohio.
 Peerless Furnace and Foundry Co., 1853 Ludlow Av., Indianapolis 7, Ind.
 Peerless Mfg. Corp., 1400 W. Ormsby Ave., Louisville 10, Ky.
 Peerless of America, Inc., 5830 N. Pulaski Rd., Chicago 30, Ill.
 Peninsular Stove Co., 2699 Gratiot Av., Detroit 7, Mich.
 Penn Boiler & Burner Mfg. Corp., Fruitville Rd., Lancaster, Pa.
 Penn Brass & Copper Co., Erie, Pa.
 Penn Controls, Inc., Goshen, Ind.
 Penn Metal Co., Inc., 205 E. 42nd St., New York 17, N. Y.
 Penn Supply & Metal Corp., 1831 N. Fifth St., Philadelphia 22, Pa.
 Penn Tool Co., 124 E. Cumberland St., Philadelphia 25, Pa.
 Penn Ventilator Co., Goodman Av., Philadelphia 40, Pa.
 Pennsylvania Engineering Corp., 526 S. Jefferson St., New Castle, Pa.
 Pennsylvania Flexible Metallic Tubing Co., 72nd St. & Powers Lane, Philadelphia 42, Pa.
 Pennsylvania Furnace & Iron Co., 313 Pine St., Warren, Pa.
 Pennsylvania Range Boiler Co., 24th & Ellsworth Sts., Philadelphia 46, Pa.
 Pennsylvania Refining Co., Ohio Div., 2686 Lisbon Rd., Cleveland 4, Ohio.
 Pennsylvania Salt Mfg. Co., 877 Widener Bldg., Philadelphia 7, Pa.
 Pennsylvania Saw Corp., Box 188, Wellesley Hills 82, Mass.
 Pennsylvania Wire Glass Co., 1612 Market St., Philadelphia 3, Pa.
 Perco, Glendora, Calif.
 Perfection Furnace Pipe Co., Toledo 4, Ohio.
 Perfection Stove Co., 7609 Platt Av., Cleveland 4, Ohio.
 Perfex Corp., 500 W. Oklahoma Av., Milwaukee 7, Wis.
 Perkinson, William J., 412-14 N. Wolcott Av., Chicago 22, Ill.
 Permutit Co., 330 W. 42nd St., New York 36, N. Y.
 Perrygraf Corp., Maywood, Ill.
 Peters-Dalton, Inc., 17900 Ryan Road, Detroit 12, Mich.
 Petersen Mfg. Co., DeWitt, Nebr.
 Peterson Co., B. A., 300 W. Railroad, Dowagiac, Mich.
 Petro Div., Iron Fireman Mfg. Co., 3170 W. 106 St., Cleveland 11, Ohio.
 Petroleum Chemicals, Inc., P. O. Box 969, Fresno, Calif.
 Petroleum Solvent Corp., 331 Madison Av., New York 17, N. Y.
 Pettit & Sons Co., Inc., W. T., 1670 Keefer Rd., Youngstown 4, O.
 Pfanstiehl Chemical Co., 104 Lakeview Av., Waukegan, Ill.
 Pfening Co., Fred D., 1075 W. 5th Av., Columbus 12, Ohio.
 Phelps Dodge Copper Products Corp., British American Tube Div., 40 Wall St., New York 3, N. Y.
 Phelps Mfg. Co., 801 Thomas St., Little Rock, Ark.
 Pheoll Mfg. Co., 5700 Roosevelt Rd., Chicago 50, Ill.
 Philadelphia Chain Block & Mfg. Co., Inc., Hancock & Norris Sts., Philadelphia, Pa.
 Philadelphia Gear Works, Inc., Erie Av. and G St., Philadelphia 34, Pa.
 Philadelphia Thermometer Co., 6th & Cayuga Sts., Philadelphia 40, Pa.
 Philadelphia Tramrail Co., 3458 N. Weikel St., Philadelphia 34, Pa.
 Philco Corp., Tioga and C Sts., Philadelphia 34, Pa.
 Phillips Cooling Tower Co., Inc., 220 Dupont St., Brooklyn 22, N. Y.
 Phillips Drill Co., U. S. 12 and Liberty Trail, Michigan City, Ind.
 Phoenix Fan and Blower Mfg. Co., Div. of Polaire Cooler Co., 112 S. 8th Ave., Phoenix, Ariz.
 Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
 Piatt Products Corp., 1149 S. Pennsylvania Ave., Lansing 4, Mich.
 Pioneer Furnace Co., 3131 San Fernando Rd., Los Angeles 65, Calif.
 Pioneer Tool Co., 908-10th St., Racine, Wis.
 Pioneer Water Heater Corp., 3131 San Fernando Rd., Los Angeles 65, Calif.
 Pittsburgh Corning Corp., One Gateway Center, Pittsburgh 22, Pa.
 Pittsburgh Furnace Parts Co., 109 Federal St., Pittsburgh, Pa.
 Pittsburgh Lector dryer Corp., P. O. Box 1766, Pittsburgh 30, Pa.
 Pittsburgh Plate Glass Co., 632 Fort Duquesne Blvd., Pittsburgh 22, Pa.
 Pittsburgh Steel Co., 800 Grant Bldg., Pittsburgh, Pa.
 Pittsburgh Water Heater Co., P. O. Box 4452, Pittsburgh 3, Pa.
 Plasteel Products Corp., McAdam Ave., Washington, Pa.
 Plastergon Wall Board Co., Philadelphia Av., Buffalo 7, N. Y.
 Plastex Corp., 402 Mt. Vernon, Columbus, O.
 Plastic Products Co., 6459 Georgia Av., Detroit 11, Mich.
 Plummer Spray Equipment Co., 700 Fillmore St., Napoleon, Ohio.
 Polaire Cooler Co., Inc., 112 South 8th Ave., Phoenix, Ariz.
 Polis Mfg. Co., J. D., 2900-20 W. 26th St., Chicago 23, Ill.
 Pollenex, 303 W. Monroe, Chicago, Ill.
 Portable Electric Tools, Inc., 320 W. 83rd St., Chicago 20, Ill.
 Porter-Cable Machine Co., 1714 N. Salina St., Syracuse 8, N. Y.
 Portland Stove Foundry Co., 57 Kennebec St., Portland 2, Maine.
 Potomac Mfg. Co., 318 S. 10th St., Philadelphia 7, Pa.
 Potts-Farrington Co., 4250 Wissahickon Ave., Philadelphia 29, Pa.
 Powder Power Tool Corp., 7526 S. W. Macadam Ave., Portland 1, Ore.
 Power Engineering Co., 205 W. Wacker Dr., Chicago 6, Ill.
 Power-Freeze, Inc., 45 Third St., N. E., Atlanta, Ga.
 Powers Regulator Co., 3400 Oakton St., Skokie, Ill.
 Powers Wire Products Co., P. O. Box 216, 523 Detroit Ave., Monroe, Mich.
 Prat-Daniel Corp., South Norwalk, Conn.
 Precision Thermometer & Instrument Co., 1434 Brandywine St., Philadelphia 30, Pa.
 Precision Welder Mfg. Co., 660 W. Grand Ave., Chicago, Ill.
 Preferred Utilities Mfg. Corp., 1860 Broadway, New York 23, N. Y.
 Premier Co., 755 Woodlawn Ave., St. Paul 1, Minn.
 Premier Furnace Co., Lock Box 150, Dowagiac, Mich.
 Premier Metal Etching Co., 21-03 44th Av., Long Island City 1, N. Y.
 Premium Coal & Oil Co., 5830 Carthage Ave., Cincinnati 12, Ohio.
 Prepo Corp., Edgerton, Wis.
 Presstite Engineering Co., 3900 Chouteau St., St. Louis 10, Mo.
 Price Bros., Flexicore Div., E. Monument Ave., Dayton, Ohio.
 Price & Rutzebeck, P. O. Box 30, Hayward, Calif.
 Primor Products, Inc., 2011 W. Beecher Rd., Adrian, Mich.
 Pritchard & Co., J. F., of California, Div. of J. F. Pritchard & Co., 4625 Roanoke Parkway, Kansas City 12, Mo.

Producers & Distributors, Inc., 714 S. 6th St., Allentown, Pa.
 Products Research Co., 3126 Los Feliz Blvd., Los Angeles 39, Calif.
 Progressive Welder Sales Co., 3070 E. Outer Dr., Detroit 34, Mich.
 Protective Coatings, Inc., P. O. Box 3983, Strathmoor Station, Detroit 23, Mich.
 Proto Tools, 2209 Santa Fe Ave., Los Angeles 58, Calif.
 Pryne & Co., Inc., 140 N. Towne Ave., P. O. Box 698, Pomona, Calif.
 Puhl & Hepper Mfg. Co., Inc., 6400 W. Florissant Av., St. Louis 20, Mo.
 Pullman Vacuum Cleaner Corp., 31-39 Allerton St., Boston 19, Mass.
 Purolator Products, Inc., 970 New Brunswick Ave., Rahway, N. J.
 Pyle-National Co., Multi-Vent Div., 1334 N. Kostner Av., Chicago 51, Ill.
 Pyott Foundry & Machine Co., 328 N. Sangamon St., Chicago 7, Ill.
 Pyramid Mouldings, Inc., 5353 W. Armstrong Av., Chicago 30, Ill.
 Pyrolite Products Co., 1221-31 W. 74th St., Cleveland 2, Ohio.

Q

Quaker State Metals Co., Box 1167, Lancaster, Pa.
 Quality Heating Supply Co., 1632 Race St., Cincinnati, O.
 Quass & Sons, Chas. E., 5018 Yukon St., N. W., Canton 8, O.
 Queen Stove Works, Inc., 303 Front St., Albert Lea, Minn.
 Quickdraft Co., Div. Herring-Hall-Marvin Safe Co., 1150 S. Erie Blvd., Hamilton, O.
 Quick Furnace & Supply Co., 215 Court Av., Des Moines 9, Iowa.
 Quiet-Air Mfg. Div., Abco Refrigeration Supply Co., 1615 Second Ave., New York 28, N. Y.
 Quiet Automatic Burner Corp., 33-35 Bloomfield Ave., Newark 4, N. J.
 Quiet-Meet Mfg. Corp., Subsidiary of Emerson Radio and Phonograph Corp., 46 Oliver St., Newark 5, N. J.
 Quigley Co., Inc., 327 Fifth Av., New York 17, N. Y.
 Quincy Stove Mfg. Co., 807 S. Front St., Quincy, Ill.

R

R. B. Enterprises, Inc., 2284 Maxwell, Detroit 14, Mich.
 RCA Victor Div., Radio Corp. of America, Camden, N. J.
 RCS Tool Sales Corp., P. O. Box 1434, Joliet, Ill.
 R-S Products Corp., 4600 Germantown Ave., Philadelphia 44, Pa.
 Racine Hydraulics & Machinery, Inc., 2000 Albert St., Racine, Wis.
 Radex Corp., 2076 Elston Ave., Chicago, Ill.
 Radiant-Aire Corp., Arthur St., Box 151, Michigan City, Ind.
 Radiant Burners, Inc., 310 S. Main St., Lombard, Ill.
 Radiant Utilities Corp., 8817 18th Ave., Brooklyn, N. Y.
 Radiation Furnace Corp., Benton Harbor, Mich.
 Radiator Specialty Co., 1700-1900 Dowd Rd., Charlotte 1, N. C.
 Radio Corp. of America, Front & Cooper Sts., Camden, N. J.
 Ralph Mfg. Co., Inc., P. O. Box 188, Wadsworth, Ohio.
 Ramset Fasteners, Inc., 12117 Berea Rd., Cleveland, Ohio.
 Ramtite Co., Div. S. Obermayer Co., 2563 W. 18th St., Chicago 8, Ill.
 Ranco, Inc., 601 W. 5th Ave., Columbus 1, Ohio.
 Randall Graphite Bearings, Inc., Greenlawn & Lake Sts., Lima, Ohio.
 Ransome Co., 4030 Hollis St., Emeryville 8, Calif.
 Rapidesign, Inc., P. O. Box 592, Glendale, Calif.
 Rasch Mfg. Corp., 1630-48 Oakland Ave., Kansas City 3, Mo.
 Rawlplug Co., Inc., The, 271 Church St., New York 13, N. Y.
 Ravbestos-Manhattan, Inc., 61 Willett St., Passaic, N. J.
 Rayfield-Staffco Burner Co., 2066 Canalport, Chicago 8, Ill.
 Ray Oil Burner Co., 1301 San Jose Av., San Francisco 12, Calif.
 Raytheon Mfg. Co., Waltham 34, Mass.
 Reading Crane & Hoist Corp., 2100 Adams St., Reading, Pa.
 Reco Products Div., Recony Corp., 150 Nassau St., New York 38, N. Y.
 Redmond Distributors, Inc., 850 Broad St., Newark, N. J.
 Red Spot Electric Co., 7403 S. Tacoma Way, Tacoma 9, Wash.
 Red Wing Oil Burner Co., Inc., 12 Forest St., Medford 53, Mass.
 Reed Equipment Div., The Webb Corp., Box 549, Webb City, Mo.
 Reed Unit-Fans, Inc., 1001 St. Charles Av., New Orleans 8, La.
 Rees Blow Pipe Mfg. Co., 2929 Fifth St., Berkeley 10, Calif.
 Reeves Steel & Mfg. Co., Lock Box 107, Dover, Ohio.
 Reflectal Corp., Subsidiary Borg-Warner Corp., 310 S. Michigan Ave., Chicago 4, Ill.
 Refractory & Insulation Corp., 120 Wall St., New York 3, N. Y.

Refrigeration Economics Co., Inc., 1231 Tuscarawas St., E., Canton 2, Ohio.
 Refrigeration Engineering, Inc., 7250 E. Slauson Ave., Los Angeles 22, Calif.
 Rega Mfg. Co., 79 Mt. Hope Av., Rochester 20, N. Y.
 Register & Grille Mfg. Co., Inc., 70 Berry St., Brooklyn 11, N. Y.
 Rehm, R., 112 208th St., St. Albans 11, N. Y.
 Reichert Float & Mfg. Co., 2242 Smead Av., Toledo 6, Ohio.
 Reichhelm Co., Robert, Sniffen Lane, Stratford, Conn.
 Reif-Rexoil, Inc., 37-41 Carroll St., Buffalo 3, N. Y.
 Reilly Tar & Chemical Corp., 1615 Merchants Bank Bldg., Indianapolis 4, Ind.
 Reiner & Campbell Co., Inc., 19 Euclid Ave. at Lockwood St., Box 5035, Newark 3, N. J.
 Reliable Gas Products Co., 221 Third St., N. E., Cedar Rapids, Iowa.
 Reliance Automatic Lighting Co., 1929 Mead St., Racine, Wis.
 Reliance Electric & Engineering Co., 1058 Ivanhoe Rd., N. E., Cleveland 10, Ohio.
 Reliance Refrigerating Machine Co., 3401 N. Kedzie Ave., Chicago, Ill.
 Reliance Regulator Div., American Meter Co., Inc., 1000 Meridian Ave., Alhambra, Calif.
 Remco, Inc., Zelienople, Pa.
 Remington Air Conditioning Div., Remington Corp., Auburn, N. Y.
 Remington Arms Co., Inc., 939 Barnum Ave., Bridgeport 2, Conn.
 Rempe Co., 340 N. Sacramento Ave., Chicago 12, Ill.
 Republic Heater Corp., 2231 Randolph St., Huntington Park, Calif.
 Republic Products Co., 7420 State Rd., Philadelphia 36, Pa.
 Republic Rubber Div., Lee Rubber & Tire Corp., Youngstown 1, Ohio.
 Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
 Research Cottrell, Inc., 405 Lexington Ave., New York 17, N. Y.
 Research Products Corp., 1015 E. Washington Av., Madison 10, Wis.
 Resolite Corp., Zelienople, Pa.
 Reuland Electric Co., Alhambra, Calif.
 Revcor, Carpentersville, Ill.
 Revere Copper and Brass, Inc., 230 Park Av., New York 17, N. Y.
 Revere Products, Inc., 9145 E. Forest Av., Detroit 13, Mich.
 Rex Metal-Craft, Inc., 1718 Gent St., Indianapolis, Ind.
 Rex Roto Corp., 14414 Dexter Blvd., Detroit 6, Mich.
 Rex Welder and Engineering Co., 409 Southwest Blvd., Kansas City 8, Mo.
 Reynolds Electric Co., 3000 River Rd., River Grove, Ill.
 Reynolds Gas Regulator Co., 1416 Lincoln St., Anderson, Ind.
 Reynolds Mfg. Co., Springfield 2, Mo.
 Reynolds Metals Co., P. O. Box 2158, Louisville 1, Ky.
 Reznor Mfg. Co., Mercer, Pa.
 Rheem Mfg. Co., 7600 S. Kedzie Ave., Chicago 29, Ill.
 Rhodes, Inc., M. H., 30 Bartholomew Av., Hartford 6, Conn.
 Richards-Wilcox Mfg. Co., 275 Third St., Aurora, Ill.
 Rich Fan Mfg. Co., Phil, 2900 Caroline St., Houston 4, Tex.
 Richkraft Co., The, 510 N. Dearborn St., Chicago 10, Ill.
 Richmond Radiator Co., Affil. Reynolds Metals Co., Box 111, Metuchen, N. J.
 Riest & Thesmacher Co., 1526 W. 25th St., Cleveland 13, Ohio.
 Riffin Metal Products, Box 267, Kankakee, Ill.
 Rigidbilt, Inc., 2850 W. Fulton St., Chicago 12, Ill.
 Rigidized Metals Corp., 699-P Ohio St., Buffalo 3, N. Y.
 Rinehart Inc., Richmond, Ind.
 Rival Strap Corp., 308 W. 20th St., New York 11, N. Y.
 Riverside Boiler & Engineering Co., Inc., 2705 Industrial Dr., Ft. Worth, Tex.
 Riverton Lime & Stone Co., Inc., Riverton, Va.
 Robbins & Myers, Inc., 1345 Lagonda Av., Springfield 99, Ohio.
 Robert Mfg. Co., 9035 Venice Blvd., Los Angeles 34, Calif.
 Roberts Co., S. R., Marshall, Mich.
 Roberts-Gordon Appliance Co., 44 Central Ave., Buffalo 6, N. Y.
 Robertshaw Thermostat Div., Robertshaw-Fulton Controls Co., Youngwood, Pa.
 Robertson, F. L., 56 Rano St., Buffalo, N. Y.
 Robertson Co., H. H., 2400 Farmers Bank Bldg., Pittsburgh 22, Pa.
 Robinson Aviation, Inc., Teterboro, N. J.
 Robinson Insulation Co., P. O. Box 1419, Great Falls, Mont.
 Robinson Ventilating Co., Zelienople, Pa.
 Robot Auto-Heat Corp., Newfield St., Middletown, Conn.
 Rochester Mfg. Co., Inc., 66 Rockwood St., Rochester 10, N. Y.
 Rockford Brass Works, 700 S. Main St., Rockford, Ill.
 Rockford Screw Products Co., 2501 Ninth St., Rockford, Ill.
 Rock Island Register Co., 2435 Fifth Av., Rock Island, Ill.
 Rockwell Co., W. S., 2543 Eliot St., Fairfield, Conn.

Roebbling's Sons Corp., John A., Suby. Colorado Fuel and Iron Corp., 640 S. Broad St., Trenton 2, N. J.
 Roesch Tool Co., 3461 Grand View Blvd., Los Angeles 66, Calif.
 Roessing Mfg. Co., 1616 Noble St., Sharpsburg, Pittsburgh 13, Pa.
 Rohm & Haas Co., 222 W. Washington St., Philadelphia, Pa.
 Roliton of America, Inc., 714 E. Van Buren St., Phoenix, Ariz.
 Rome-Turney Radiator Co., Canal St., Rome, N. Y.
 Ronci Machine Co., Inc., F., 2 Atlantic Blvd., Centredale 11, R. I.
 Roofing & Supply Co., 1409-15 Fort St., Chattanooga, Tenn.
 Roper Corp., Geo. D., Blackhawk Park Av., Rockford, Ill.
 Rosebraugh Co., W. W., 680 S. 17th St., Salem, Ore.
 Rosedale Foundry & Machine Co., Columbus & Preble Ave., N. S. Pittsburgh 12, Pa.
 Rose Mfg. Co., 2700 W. Barberry Pl., Denver 4, Colo.
 Rossaul Co., 170 Fifth Ave., New York 10, N. Y.
 Ross Engineering Corp., J. O., 444 Madison Ave., New York 22, N. Y.
 Rossie Mfg. Co., 413 Fairview Ave., N. Seattle, Wash.
 Ross Sprinkler Co., 4333 Temple City Blvd., Rosemead, Calif.
 Rotary Concrete Drill Co., 650 S. Arroyo Parkway, Pasadena 2, Calif.
 Rotex Punch Co., Inc., 2350 Alvarado, San Leandro, Calif.
 Rotor Corp., P. O. Box 42, Far Hills Br., Dayton 9, Ohio
 Rotor Tool Co., 26300 Lakeland Blvd., Cleveland 23, Ohio.
 Roto-Table Co., 2605 E. Third St., Dayton 3, Ohio.
 Round Bridgeport Chain & Mfg. Co., 964 Crescent Ave., Bridgeport 1, Conn.
 Round Oak Co., Inc., Dowagiac, Mich.
 Round Tube and Cores Co., 806 N. Peoria St., Chicago 22, Ill.
 Royal-Apex Mfg. Co., Inc., 1389-97 Atlantic Ave., Brooklyn 16, N. Y.
 Royal Jet, Inc., 1024 Westminster Av., Alhambra, Calif.
 Royersford Foundry & Machine Co., 55 Main St., Royersford, Pa.
 Royson Engineering, Hatboro, Pa.
 Rubber and Asbestos Corp., 225 Belleville Ave., Bloomfield, N. J.
 Ruberoid Co., 500 Fifth Ave., New York 36, N. Y.
 Ruby Chemical Co., 74 McDowell St., Columbus 8, Ohio.
 Ruby Management Co., 620 Brookline Blvd., Pittsburgh 26, Pa.
 Ruemelin Mfg. Co., 3860 N. Palmer St., Milwaukee 12, Wis.
 Ruggles-Klingemann Mfg. Co., 4 Foster Ct., Salem, Mass.
 Russell Co., F. C., 1100 Chester Ave., Cleveland 1, Ohio.
 Russell Mfg. Co., Inc., John M., Box 246, Naugatuck, Conn.
 Rust-Oleum Corp., 2425 Oakton St., Evanston, Ill.
 Rutland Fire Clay Co., 91 Curtis Av., Rutland, Vt.
 Ruud Mfg. Co., 2934 Smallman St., Pittsburgh 1, Pa.
 Rybolt Heater Co., 615 Miller St., Ashland, Ohio.
 Ryerson & Son, Inc., Joseph T., 2558 W. 16th St., Chicago 80, Ill.
 Ryniker Steel Products Co., 11-19 N. 25th St., Billings, Mont.

S

S-K Co., Inc., Admiral Wilson Blvd., Camden, N. J.
 SKF Industries, Inc., Front St. and Erie Av., Philadelphia 32, Pa.
 S.O.S. Products Co., Inc., 282 Nassau Ave., Brooklyn 22, N. Y.
 Saginaw Salt Products Co., 3000 Carrollton Rd., Saginaw 35, Mich.
 St. Charles Mfg. Co., St. Charles, Ill.
 St. Clair Foundry Corp., Beech & Wilson Sts., Centralia, Ill.
 St. Clair Metal Products Co., 6700 Central Ave., Cleveland, O.
 St. Clair Rubber Co., Marysville, Mich.
 St. Louis Blow Pipe & Heater Co., Div. of Young Sales Corp., 1948 N. 9th St., St. Louis 6, Mo.
 St. Louis Furnace Mfg. Co., 2710 N. 25th St., St. Louis 6, Mo.
 St. Louis Tool Co., 6100 Prescott St., St. Louis 13, Mo.
 St. Paul Corrugating Co., South Wabasha & Water Sts., St. Paul 1, Minn.
 Sall Mountain Co., Box 777, Hamilton, Ohio.
 Sampson Chemical and Treatment Co., Inc., 2830 W. Lake St., Chicago 12, Ill.
 Samuel Stamping & Enameling Co., Manufacturers Rd., Chattanooga, Tenn.
 San Angelo Foundry & Machine Co., Box 1587, 1000 Upton St., San Angelo, Texas.
 San Carlos Mfg. Co., 850 E. San Carlos Ave., San Carlos, Calif.
 Sandberg Mfg. Co., 3850 N. W. Yeon Av., Portland 10, Ore.
 Sandee Mfg. Co., 5050 W. Foster Ave., Chicago, Ill.
 Sanders, J. A., Box 123, Fulton, N. Y.
 Sangamo Electric Co., 1301 N. 11th St., Springfield, Ill.
 Santa Fe Tank & Tower Co., 5401 S. Boyle Ave., Los Angeles 11, Calif.
 Saran Lined Pipe Co., 2415 Burdette Ave., Ferndale 20, Mich.

Sarco Co., Inc., Empire State Bldg., New York 1, N. Y.
 Sarcotherm Controls, Inc., Empire State Bldg., New York 1, N. Y.
 Sargent EnginAiring Co., 1375 E. 45th St., Cleveland, O.
 Sauereisen Cements Co., 1045 N. Canal St., Pittsburgh 13, Pa.
 Savage Co., W. J., 912 W. Clinch Av., Knoxville 16, Tenn.
 Saw-Mor Tool & Blade Co., 520 Machinery Hall Bldg., Chicago 6, Ill.
 Scaife Co., Oakmont, Pittsburgh District, Pa.
 Schaefer Brush Mfg. Co., 115-117 W. Walker, Milwaukee 4, Wis.
 Scheck, William, 353 Shaler Blvd., Ridgefield, N. J.
 Schecter Bros. Co., N. W. Cor. Hancock & Huntington Sts., Philadelphia 33, Pa.
 Schild Mfg. Co., Lakewood Station, Box 9803, Dallas 14, Texas.
 Schill Mfg. Co., 302 Mansfield St., Crestline, Ohio.
 Schnacke, Inc., 1101 N. Governor St., Evansville, Ind.
 Schoedinger, F. O., 322-358 Mt. Vernon Av., Columbus 16, Ohio.
 Schori Process Div. Ferro-Co. Corp., 8 Forty-third Rd., Long Island City 1, N. Y.
 Schwab Furnace Co., 332 W. Florida St., Milwaukee 4, Wis.
 Schwab Safe Co., East Maine and Boulevard, Lafayette, Ind.
 Schwitzer-Cummins Co., 1125 Massachusetts Ave., Indianapolis 7, Ind.
 Sciaky Bros., Inc., 4915 W. 67th St., Chicago 38, Ill.
 Scotco Products Co., Beverly, Mass.
 Scully Signal Co., 174 Green St., Melrose, Mass.
 Seamlex Co., Inc., 41-23 24th St., Long Island City 1, N. Y.
 Seco-Lite Mfg. Co., 4916 Easton Av., St. Louis 13, Mo.
 Selas Corp. of America, Erie Ave. and D St., Philadelphia 34, Pa.
 Selectrol Engineering Co., 2036 McDonald Av., Brooklyn 23, N. Y.
 Semet-Solvay Engineering Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Sequoia Mfg. Co., 1000 Brittan Av., San Carlos, Calif.
 Servel, Inc., 119 Morton Av., Evansville 20, Ind.
 Service Machine Co., Inc., 466 Miller St., Elizabeth 4, N. J.
 Set Screw & Mfg. Co., 11 Main St., Bartlett, Ill.
 Severson Mfg. & Supply Co., 1034 W. Somers St., Milwaukee 5, Wis.
 Shafer Bearing Div., Chain Belt Co., 801 Burlington Ave., Downers Grove, Ill.
 Shakeproof Div., Illinois Tool Wks., 2501 N. Keeler Av., Chicago 39, Ill.
 Shellcross Controls, Inc., 2217-21 N. 31st St., Milwaukee 8, Wis.
 Shana Mfg. Co., 88 W. Randolph St., Chicago 1, Ill.
 Sharon Steel Corp., Drawer 537, Sharon, Pa.
 Sheet Metal Mfg. Co., 6400 Southern Blvd., Youngstown 12, O.
 Sheet Metal Mfg. Co., Inc., 953 Myrtle Av., Brooklyn 6, N. Y.
 Sheet Metal Specialty Div., Follansbee Steel Corp., P. O. Box 567, Follansbee, W. Va.
 Shell Oil Co., 50 W. 50th St., New York 20, N. Y.
 Shepard Niles Crane & Hoist Corp., 410 Schuyler Av., Montour Falls, N. Y.
 Sheridan-Gray, Inc., 405 Via Chico, Palos Verdes Estates, Calif.
 Sherwin-Williams Co., 101 Prospect Ave., N. W., Cleveland 1, Ohio.
 Shrager, Inc., John, 2 W. 46th St., New York 36, N. Y.
 Siemon Mfg. Co., Grandview, Kansas City, Mo.
 Sight Feed Generator Co., P. O. Box 38, West Alexandria, Ohio.
 Signal Electric Div., King-Seely Corp., P. O. Box 75, Menominee, Mich.
 Silent Glow Oil Burner Co., 850 Windsor St., Hartford, Conn.
 Silent Sioux Corp., Orange City, Iowa.
 Silvercote Products, Inc., 161 E. Erie St., Chicago 11, Ill.
 Silvercraft, Inc., 120 S. Floyd, Louisville, Ky.
 Simonds Saw & Steel Co., 470 Main St., Fitchburg, Mass.
 Simplex Mfg. Co., 200 N. Main St., Fond du Lac, Wis.
 Simplex Oil Heating Corp., 7901 Oxford Av., Philadelphia 11, Pa.
 Simpson Co., 1060 E. 11th St., Oakland 6, Calif.
 Sioux Steel Co., Sioux Falls, S. Dak.
 Sipe & Co., James B., 118 Vanadium Rd., Pittsburgh 16, Pa.
 Skilbeck Mfg. Co., 7432 27th Av., Kenosha, Wis.
 Skil Corp., 5033 Elston Av., Chicago 30, Ill.
 Skinner Electric Valve Div., The Skinner Chuck Co., 95 Edgewood Ave., New Britain, Conn.
 Skinner Heating & Ventilating Co., Div. St. Louis Blow Pipe & Heater Co., Inc., 1954 N. 9th St., St. Louis 6, Mo.
 Skuttle Mfg. Co., Milford, Mich.
 Slip-On, Inc., 401 Broadway, New York 13, N. Y.
 Sly Mfg. Co., W. W., 4736 Train Av., Cleveland 2, Ohio.
 Small Lot Stamping Co., 1025 W. Blancke St., Linden, N. J.
 Small Motors, Inc., 2076 Elston Av., Chicago 14, Ill.
 Smith Co., J. B., 3327 B St., Philadelphia 34, Pa.

Smith Corp., A. O., Permaglas Div., Kankakee, Ill.
 Smith Filter Corp., 2nd Av., Moline, Ill.
 Smith Furnace Co., 216 S. Croton Ave., New Castle, Pa.
 Smith, R. E., 1806 Belvidere St., Waukegan, Ill.
 Smith & Son, Inc., Seymour, Box 591, Oakville, Conn.
 Smith Welding Equipment Corp., 2633 Fourth St., S. E., Minneapolis 14, Minn.
 Smooth-on Mfg. Co., 568-574 Communipaw Av., Jersey City 4, N. J.
 Snap-On Mfg. Co., 1028 Blue Island Av., Chicago, Ill.
 Snap-on Tools Corp., Kenosha, Wis.
 Solar Aircraft Co., San Diego 12, Calif.
 Solvay Process Div., Allied Chemical & Dye Corp., 61 Broadway, New York 6, N. Y.
 Somers, Inc., H. J., 6063 Wabash Av., Detroit 8, Mich.
 Sommerfeld Louvres, Inc., 207 E. 37th St., New York 16, N. Y.
 Sonneborn Sons, Inc., L., 404 Fourth Ave., New York 16, N. Y.
 Sonner Burner Co., 412-420 E. 6th Ave., Winfield, Kans.
 Sonoco Products Co., Construction Products Div., Hartsville, S. C.
 Soreng Mfg. Co., 9551 Soreng Ave., Schiller Park, Ill.
 Soss Mfg. Co., 21777 Hoover Rd., Detroit 13, Mich.
 Soule Steel Co., 1750 Army St., San Francisco 24, Calif.
 South Bend Air Products, Inc., 322 E. Colfax, South Bend 22, Ind.
 Southbridge Roofing Co., Inc., Hartwell & Chapin Sts., Southbridge, Mass.
 Southco Div., South Chester Corp., Finance Bldg., Philadelphia 2, Pa.
 Southern Iron Co., E. E., 1952 Kienlen Av., St. Louis 20, Mo.
 Southern Air Conditioning Mfg. Co., 2819 E. Belknap St., Fort Worth 2, Texas.
 Southern Heater Corp., Compton, Calif.
 Southern Mist Products Co., 945 Pitner Ave., Evanston, Ill.
 Southern States Iron Roofing Co., Stiles Av. & Louisville Rd., Savannah, Ga.
 Southport Paint Co., Div. Wesson Oil & Snowdrift Co., Inc., Savannah, Ga.
 Southwestern Heater Corp., 309 Browder St., Dallas, Texas.
 Southwest Mfg. Co., Box 28, Aurora, Mo.
 Southwest Mfg. Co., Box 1613, Santa Ana, Calif.
 Sparkler Mfg. Co., Mundelein, Ill.
 Spear Stove & Heater Co., James, 1000 Diamond St., Philadelphia 22, Pa.
 Speco, Inc., 7308 Associate Ave., Cleveland 9, Ohio.
 Spencer Thermostat Div., Metals & Controls Corp., 34 Forest St., Attleboro, Mass.
 Spencer Turbine Co., 484 New Park Av., Hartford 6, Conn.
 Sperry & Co., D. R. Batavia, Ill.
 Sperti Faraday, Inc., Cooper Hewitt Div., 1077 Celestial St., Cincinnati 2, O.
 Sponge Rubber Products Co., 280 Derby Place, Shelton, Conn.
 Sporlan Valve Co., 7525 Sussex Av., St. Louis 17, Mo.
 Spotweld Co., 3762 Ridge Rd., Cleveland, Ohio.
 Spray Engineering Co., 114 Central St., Somerville 45, Mass.
 Spraying Systems Co., 3201 Randolph St., Bellwood, Ill.
 Sprayo-Flake Co., 2715 Irving Park Blvd., Chicago 18, Ill.
 Spun Steel Div., Automatic Steel Products, Inc., 1201 Camden Av., S. W., Canton 6, Ohio.
 Square D Co., 6060 Rivard St., Detroit 11, Mich.
 Square D Co., Industrial Controller Div., 4041 N. Richards St., Milwaukee 12, Wis.
 Stahl Metal Products, 3490 W. 140, Cleveland, O.
 Stamco Inc., New Bremen, Ohio.
 Stanat Mfg. Co., 47-34 37th St., Long Island City 1, N. Y.
 Standard Arcoil Corp., 21-23 Broad St., Newark 4, N. J.
 Standard Asbestos Mfg. Co., 860 W. Evergreen Ave., Chicago 22, Ill.
 Standard Electric Mfg. Co., Inc., West Berlin, N. J.
 Standard Fuel Engineering Co., 667 Post Av., S., Detroit 17, Mich.
 Standard Furnace Supply Co., Ltd., 413 S. Tenth St., Omaha 8, Nebr.
 Standard Heating Equipment Co., 1406 E. Fourth St., Waterloo, Iowa.
 Standard Power Groove Machine Corp., 99 Hudson St., New York 13, N. Y.
 Standard Refrigeration Co., 3535 Fillmore St., Chicago 24, Ill.
 Standard Remote Control Valve Co., 205 Pasadena Av., South Pasadena, Calif.
 Standard Rolling Mills, Inc., 196 Diamond St., Brooklyn 22, N. Y.
 Standard Stamping & Perforating Co., 3137 W. 49th Pl., Chicago, Ill.
 Standard Ventilator Co., Lewisburg, Pa.
 Stanley Electric Tools Div., The Stanley Works, 480 Myrtle St., New Britain, Conn.

Stanthony Corp., 2305 W. Alameda Ave., Burbank, Calif.
 Star Expansion Bolt Co., 147 Cedar St., New York 6, N. Y.
 Stark & Co., H. W., 5668 Geddes Rd., Ann Arbor, Mich.
 Star-Kimble Motor Div., Michle Printing Press & Mfg. Co., 200 Bloomfield Av., Bloomfield, N. J.
 Star Stainless Screw Co., 193 Union Ave., Paterson, N. J.
 Steel City Furnace Co., Springdale, Pa.
 Steelcraft Mfg. Co., 9017 Blue Ash Rd., Rossmoyne, O.
 Steele Mfg. Co., 445 Winchester Ave., Ashland, Ky.
 Steel Products Engineering Co., Combustioneer Div., 1205 W. Columbia St., Springfield, Ohio.
 Steel & Tubes Div., Republic Steel Corp., 216 E. 131st St., Cleveland 8, Ohio.
 Stefcro Steel Co., 41 Roeske Av., Michigan City, Ind.
 Steffens-Amberg Co., 262 Morris Av., Newark 3, N. J.
 Steinen Mfg. Co., Wm., 43 Bruen St., Newark, N. J.
 Stephens-Adamson Mfg. Co., Ridgeway Av., Aurora, Ill.
 Sterling Air Conditioning Corp., 354 W. Main Ave., Gastonia, N. C.
 Sterling Electric Motors, Inc., 5401 Telegraph Rd., Los Angeles 22, Calif.
 Sterling Engineering Co., 7402 Lansdowne Av., St. Louis 19, Mo.
 Sterling Foundry Co., P. O. Box 457, Sterling, Ill.
 Sterling Heat Specialties, Inc., 260 N. Elm St., Westfield, Mass.
 Stewart Co., W. H., 420 E. Grand Av., Oklahoma City 2, Okla.
 Stewart Ice Machine Co., 1282 W. 1st St., Pomona, Calif.
 Stewart Mfg. Co., Grove Ave., Cedar Grove, N. J.
 Stewart Mfg. Co., 320 E. St. Joseph St., Indianapolis 2, Ind.
 Stewart-Warner Corp., U. S. Machine Div., Lebanon, Ind.
 Stic-Klip Mfg. Co., Inc., 50 Regent St., Cambridge 40, Mass.
 Stoddard Industries, Inc., 1545 Kingsbury St., Chicago 22, Ill.
 Stokar-Ola Mfg. Co., 2400 S. Adams St., Peoria, Ill.
 Stortz & Son, Inc., John, 210 Vine St., Philadelphia 6, Pa.
 Stossel & Sons Co., Carl, Front Royal, Va.
 Stow Mfg. Co., 445 State St., Binghamton, N. Y.
 Straitsville Brick Co., New Straitsville, O.
 Stratton & Terstegge Co., 1501 W. Main St., Louisville 1, Ky.
 Structural Slate Co., The, E. Main St., Pen Argyl, Pa.
 Stueck, Inc., W. Whitney, Old Saybrook, Conn.
 Sub-Zero Freezer Co., Inc., Route 3, Box 2017, Madison, Wis.
 Sudbury Laboratory, South Sudbury, Mass.
 Sullivan Valve & Engineering Co., P. O. Box 1931, Butte, Mont.
 Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp., Elyria, O.
 Sunbeau Heater Co., 3510 S. Hill St., Los Angeles 7, Calif.
 Sundstrand Engineering Co., 1325 Seventh St., Rockford, Ill.
 Sundstrand Machine Tool Co., Hydraulic Div., 2210 Harrison Ave., Rockford, Ill.
 Sundstrom Pressed Steel, 8030 S. Chicago Ave., Chicago, Ill.
 Sun-Fire Stoker Corp., 802 E. Eighth St., New Albany, Ind.
 Sunny Sue Burner Co., 117 Bertram Pl., Syracuse, N. Y.
 Sun-Ray Burner Mfg. Corp., 139-24 Queens Blvd., Jamaica 2, N. Y.
 Sunshine Mantle Co., Chanute, Kans.
 Sunwarm, Inc., P. O. Box 263, Kingsport, Tenn.
 Superbo Mfg. Co., 4090 N. Mission Rd., Los Angeles 33, Calif.
 Superior Coated Specialties, 4635 S. Harlem Ave., Berwyn, Ill.
 Superior Controls Co., Inc., 1835 S. Bonnie Brae, Los Angeles 6, Calif.
 Superior Flux & Mfg. Co., 1302 Ontario St., Cleveland 13, Ohio.
 Superior Furnace & Mfg. Co., 322 Hamilton, Plymouth, Mich.
 Superior Mfg. Co., Inc., 203 N. Pennsylvania Ave., Alexandria, Ind.
 Superior Metal Fabricating Co., Pleasant Ave., Niles, Ohio.
 Superior Pneumatic & Mfg., Inc., 4758 Warner Rd., Cleveland 25, Ohio.
 Superior Products Co., 606 S. 14th St., Omaha 2, Nebr.
 Superior Safety Furnace Pipe Co., 5820 Forsythe Av., Detroit 2, Mich.
 Superior Steel Corp., Grant Bldg., Pittsburgh, Pa.
 Superior Valve and Fittings Co., 1509 W. Liberty Ave., Pittsburgh 26, Pa.
 Super Radiator Corp., 6714 Walker St., Minneapolis 16, Minn.
 Supreme Electric Products Corp., 194 Vassar St., Rochester 7, N. Y.
 Sure Comfort Furnace Co., 900 S. Des Plaines Ave., Forest Park, Ill.
 Surface Combustion Corp., 2375 Dorr St., Toledo 1, Ohio.
 Sutton Corp., O. A., 1812 W. Second St., Wichita 2, Kans.
 Swaine Mfg. Co., Fred J., 1300 N. Seventh St., St. Louis 6, Mo.
 Swartwout Co., 18511 Euclid Av., Cleveland 12, Ohio.
 Swift Electric Welder Co., 8095 Livernois Ave., Detroit 4, Mich.
 Swingfire Div., Devenco, Inc., 150 Broadway, New York, N. Y.

Swirling Oil Burner Mfg. Corp., 105-20 New York Blvd., Jamaica 33, N. Y.
 Synchronous Flame, Inc., Walworth, Wis.
 Synchromatic Corp., 1141 Tenth St., Watertown, Wis.
 Syntrol Co., 275 Lexington, Homer City, Pa.
 Syracuse Alloy Metals Corp., 511 N. State St., Syracuse 3, N. Y.

T

Tamms Industries, Inc., 228 N. LaSalle St., Chicago 1, Ill.
 Tannewitz Works, 315 Front Av., N. W., Grand Rapids 2, Mich.
 Taylor Instrument Companies, 95 Ames St., Rochester 1, N. Y.
 Taylor-Winfield Corp., 1052 Mahoning Av., N. W., Warren, Ohio.
 Techniflex Corp., Port Jervis, N. Y.
 Tecumseh Products Co., Tecumseh, Mich.
 Telechron, Inc., Ashland, Mass.
 Tele King Corp., 601 W. 26th St., New York, N. Y.
 Temco, Inc., 4104 Park Av., Nashville 9, Tenn.
 Temprite Products Corp., East Maple Rd., Birmingham, Mich.
 Tennessee Coal & Iron Div., U. S. Steel Corp., Box 599, Fairfield, Ala.
 Tennessee Fabricating Co., 1490 Grimes, Memphis 6, Tenn.
 Tennessee Products & Chemical Corp., American Natl. Bank Bldg., Nashville 3, Tenn.
 Tenney Engineering Inc., 1090 Springfield Rd., Union, N. J.
 Termite Drills, Inc., 99 N. Lotus St., Pasadena 8, Calif.
 Tesco, Inc., 110 S. Norfolk, Tulsa, Okla.
 Thatcher Furnace Co., Centre St., Garwood, N. J.
 Thermac Co., 800 E. 108th St., Los Angeles 2, Calif.
 Thermal Agency, 1515 Dallas, Houston, Tex.
 Thermex Engineering Co., 400 N. Oakley Blvd., Chicago 12, Ill.
 Therm-O-Blast Div., O'Halloran Inds., 12317 Turner Ave., Detroit 4, Mich.
 Therm-O-Disc, Inc., 127 Crouse St., Mansfield, O.
 Thermoid Co., Whitehead Rd., Trenton 6, N. J.
 Therm Oil Burner Co., 2105 Westlake Ave., Seattle 1, Wash.
 Thermomatic Corp., Church & Elm Sts., Willoughby, Ohio.
 Thermo-Products, Inc., North Judson, Ind.
 Therm-O-Wheel, Inc., 1040 B 22 St., Far Rockaway 91, N. Y.
 Thompson Mfg. Co., A. F., 1040 Vernon St., Huntington, W. Va.
 Thompson & Co., 1085 Allegheny Av., Oakmont, Pa.
 Thompson Products, 23555 Euclid Ave., Cleveland, O.
 Thomson Electric Welder Co., 161 Pleasant St., Lynn, Mass.
 Thor Metal Products Co., Inc., Box 118, Eastwood Station, Syracuse 6, N. Y.
 Thor Power Tool Co., Aurora, Ill.
 Thor Tool & Die Co., 865 Estabrook St., San Leandro, Calif.
 Tierney Rotor Ventilator Co., 239 4th Ave., S., Minneapolis, Minn.
 Tiffin Art Metal Co., Box 807, Tiffin, Ohio.
 Tiffin Eaves Trough Clamp Co., 25 Miami St., Tiffin, Ohio.
 Time Saver Tools, Inc., Mundelein, Ill.
 Timken Roller Bearing Co., The, 1835 Dueber Ave., S. W., Canton 6, Ohio.
 Timken Silent Automatic Div., Rockwell Spring and Axle Co., Jackson, Mich.
 Tinit Mfg. Co., Inc., 1635-39 Platte St., Denver 2, Colo.
 Tinnerman Products, Inc., Department No. 16, P. O. Box 6688, Cleveland 1, Ohio.
 Titan Valve & Mfg. Co., 9913 Elk Av., Cleveland, Ohio.
 Titeflex, Inc., 52 Hendee St., Springfield, Mass.
 Titus, Inc., 1304 Broadway, Waterloo, Iowa.
 Titus Mfg. Corp., Box 810, Highway 20 West, Waterloo, Iowa.
 Tjernlund Mfg. Co., 2140 Kasota St., St. Paul 14, Minn.
 Toch Bros., Inc., 2600 Richmond Ter., Staten Island 3, N. Y.
 Toledo Heater Co., 25 S. St., Clair St., Toledo 4, Ohio.
 Tool Industries, Inc., 15438 Telegraph Rd., Detroit, Mich.
 Topflight Corp., 160 E. 9th Ave., York, Pa.
 Toridheat Div., Cleveland Steel Products Corp., 16025 Brookpark Rd., Cleveland 11, O.
 Torit Mfg. Co., 292 Walnut St., St. Paul 2, Minn.
 Tork Clock Co., Inc., 1 Grove St., Mt. Vernon, N. Y.
 Torq Electric Corp., 1002 Interstate St., Bedford, Ohio.
 Torrington Mfg. Co., 70 Franklin St., Torrington, Conn.
 Townsend Co., 206 River Rd., New Brighton, Pa.
 Townsend Co., Cherry Rivet Div., Santa Ana, Calif.
 Trade-Wind Motorfans, Inc., 5725 S. Main St., Los Angeles 37, Calif.
 Trageser Copper Works, Inc., Maspeth, L. I., N. Y.
 Trane Co., The, LaCrosse, Wis.
 Tremont Nail Co., Box 111, Wareham, Mass.
 Triad Products Corp., 5121 N. Clark St., Chicago 40, Ill.
 Triangle Mfg. Co., 338 Division St., Oshkosh, Wis.
 Trindl Products, Ltd., 1807-11 S. Clark St., Chicago 16, Ill.

Trion, Inc., 1000 Island Ave., McKees Rocks, Pa.
 Tri-Saw Corp., 6611 Clayton Rd., St. Louis 17, Mo.
 Tri-State Heating, Inc., 620 W. Main St., Detroit Lakes, Minn.
 Tri-State Heating Supply Inc., 234-236 Murray St., Fort Wayne 5, Ind.
 Tropic-Air Stoker Co., Box 236, Station A, Canton 5, Ohio.
 Tropical Paint Co., 1244-86 W. 70th St., Cleveland, Ohio.
 Trufo Fan Co., 523 Main St., Harmony, Pa.
 Tru-Heat Co., 532 Miller Ave., Trenton 10, N. J.
 Tru-Mac Mfg. Co., 24 Woburn St., Reading, Mass.
 Truscon Laboratories, Caniff & Grand Trunk R. R., Detroit 11, Mich.
 Truscon Steel Div., Republic Steel Corp., Albert St., Youngstown 1, Ohio.
 Tubular Rivet & Stud Co., Wollaston 70 (Quincy) Mass.
 Turb-O-Tube Furnace, Inc., 204 Rhode Island St., Buffalo 13, N. Y.
 Turco Products, Inc., P. O. Box 2649, Terminal Annex, Los Angeles 54, Calif.
 Turner & Seymour Mfg. Co., Lawton St., Torrington, Conn.
 Turner Brass Works, 821 Park Av., Sycamore, Ill.
 Tuthill Pump Co., 939 E. 95th St., Chicago 19, Ill.
 Tuttle & Bailey, Inc., Corbin Av., New Britain, Conn.
 Twin Control Burner Mfg. Co., 3240 Barker Ave., New York 67, N. Y.
 Typhoon Air Conditioning Co., Inc., 505 Carroll St., Brooklyn 15, N. Y.
 Tywel Mfg. Corp., 5702 First Ave., Brooklyn 19, N. Y.

U

U. S. Burner Div., The Carlin Co., River Rd., Wethersfield 9, Conn.
 U. S. Electrical Motors, Inc., 200 E. Slauson Av., Los Angeles 54, Calif.
 U. S. Electrical Tool Div., Emerson Electric Co., 8100 Florissant Ave., St. Louis, Mo.
 U. S. Expansion Bolt Co., P. O. Box 827, York, Pa.
 U. S. Rock Wool Co., 220 West So. Temple, Salt Lake City 1, Utah
 U. S. Tool & Die, Inc., 4 N. Main St., Sharpsburg, Pa.
 Uehling Instrument Co., 473 Getty Av., Paterson 3, N. J.
 Ultrasonic Corp., 640 Memorial Dr., Cambridge 39, Mass.
 Unexcelled Chemical Corp., 350 5th Ave., New York 1, N. Y.
 Union Asbestos & Rubber Co., 332 S. Michigan Ave., Chicago 4, Ill.
 Union Mfg. Co., Inc., 6th & Washington Sts., Boyertown, Pa.
 Union Spring & Mfg. Co., 1057 Summit Ave., Jersey City 2, N. J.
 Union Steam Pump Co., Capitol Ave., S. W., Battle Creek, Mich.
 Unique Mfg. Co., Inc., 221 W. Walton St., Chicago 10, Ill.
 United Air Heaters, Inc., 317 Medical Arts Bldg., Seattle, Wash.
 United-Carr Fastener Corp., 31 Ames St., Cambridge 42, Mass.
 United Chromium, Inc., 100 E. 42nd St., New York 17, N. Y.
 United Cooling Tower Co., 4022 Broadway, P. O. Box 5959, Kansas City 11, Mo.
 United Cork Cos., Central Av. & N. J. Central R. R., Kearney, N. J.
 United Electric Controls Co., 85 School St., Watertown 72, Mass.
 United Electric Service Co., 1100 Scott, Wichita Falls, Tex.
 United Gilsonite Laboratories, Scranton 1, Pa.
 United Metal Hose Co., Inc., 36-01 43rd Av., Long Island City 1, N. Y.
 (Also see "U. S.")
 United States Air Conditioning Corp., Como Av. S. E. at 33rd, Minneapolis 14, Minn.
 United States Gauge Div. American Machine & Metals, Inc., Sellersville, Pa.
 United States Gypsum Co., 300 W. Adams St., Chicago 6, Ill.
 United States Mineral Wool Co., Stanhope, N. J.
 United States Radiator Corp., Penobscot Bldg., Detroit, Mich.
 United States Register Co., 344 E. Burnham St., Battle Creek, Mich.
 United States Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.
 United States Steel Corp., 525 Wm. Penn Pl., Pittsburgh 30, Pa.
 United States Steel Supply Co., 1319 Wabansia Av., Chicago 90, Ill.
 United States Stoneware Co., 60 E. 42nd St., New York, N. Y.
 United Wire & Supply Corp., 1497 Elmwood Ave., Providence 7, R. I.
 Universal Blower Co., 1090 S. Adams Av., Birmingham, Mich.
 Universal-Cyclops Steel Corp., Drawer 153, Bridgeville, Pa.
 Universal Diffuser Corp., 1360 Garrison Ave., New York 59, N. Y.

Universal Electric Western Co., 205 W. Rio Grande, Colorado Springs, Colo.
 Universal Insulating Co., Dept. 11, 333 S. Walnut St., Van Wert, O.
 Universal Major Electric Appliances, Inc., Kibby St., Lima, O.
 Universal Metal Hose Co., 2133 S. Kedzie, Chicago, Ill.
 Universal Products Mfg. Corp., Auburn, Ind.
 Uno Ventilator Co., 1236 Eastern Av., Malden 48, Mass.
 Utica Drop Forge & Tool Corp., 2415 Whitesboro, Utica, N. Y.
 Utica Products, Inc., Utica 4, N. Y.
 Utility Appliance Corp., 4851 S. Alameda St., Los Angeles 38, Calif.
 Utility Fan Corp., Div. of Utility Appliance Corp., 911 E. 59th St., Los Angeles 1, Calif.

V

Vacuum-Electronic Engineering Co., 86 Denton Ave., New Hyde Park, N. Y.
 Vacuum Gas Burner Corp., 132 N. 1st St., Olean, N. Y.
 Vallas, Lionel, 2850 W. Lake St., Chicago 12, Ill.
 Valley Electric Co., 4221 Forest Park, St. Louis, Mo.
 Van Dorn Iron Works, 2685 E. 79th St., Cleveland, O.
 Van Noorden Co., E., 100 Magazine St., Boston 19, Mass.
 Van-Packer Corp., 1049 State St., Bettendorf, Ia.
 Van Products Co., 3734-97 W. 12th St., Erie, Pa.
 Vapor Heating Corp., 80 E. Jackson Blvd., Chicago 4, Ill.
 Vectaire Mfg. Co., 251 Howard St., Melrose, Mass.
 Velocity-Power Tool Co., 201 N. Braddock Ave., Pittsburgh 8, Pa.
 Vent-O-Lite Co., 4230 W. Taylor St., Chicago 24, Ill.
 Vernco Corp., 1804-22nd St., Columbus, Ind.
 Vernon Allsteel Press Co., 1351 E. 93rd St., Chicago 19, Ill.
 Vibration Eliminator Co., 10-28 47th Av., Long Island City 1, N. Y.
 Victor Products Corp., 901 Pope Ave., Hagerstown, Md.
 Victory Engineering Corp., Springfield Road, Union, N. J.
 Viking Air Conditioning Div., National Radiator Co., 5601 Walworth Av., Cleveland 2, Ohio.
 Viking Mfg. Corp., 1747 Chester Av., Cleveland 14, Ohio.
 Viking Pump Co., 410 State St., Cedar Falls 1, Iowa.
 Viking Shear Co., 1063 W. 19th St., Erie, Pa.
 Vilter Mfg. Co., 2217 S. First St., Milwaukee 7, Wis.
 Vital Products Mfg. Co., 7500 Quincy Av., Cleveland 4, Ohio.
 Vogt Machine Co., Henry, 1000 W. Ormsby St., Louisville 10, Ky.
 Volcano Burner Corp., 3612 E. Tremont Av., New York 61, N. Y.
 Vulcan Electric Co., Div. Consolidated Electric Lamp Co., Inc., 88 Holten St., Danvers, Mass.
 Vulcan Radiator Co., 26 Francis Ave., Hartford 6, Conn.
 Vyke Mfg. Co., 2439-15th St., Denver, Colo.

W

W. C. Products, Inc., 1748 Berkeley St., Santa Monica, Calif.
 W. G. B. Oil Clarifier, Inc., 139 Cornell, Kingston, N. Y.
 Wabash Mfg. Co., 2318 S. Western Ave., Chicago 8, Ill.
 Wade Mfg. Co., Div. Woodruff & Edwards, Inc., Elgin, Ill.
 Wagner Awning & Mfg. Co., 2658 Scranton Rd., Cleveland 1, Ohio.
 Wagner Electric Corp., 6400 Plymouth Av., St. Louis 14, Mo.
 Wales-Strippit Corp., 345 Payne Ave., North Tonawanda, N. Y.
 Walker Mfg. & Sales Corp., 1711-1717 Penn St., St. Joseph 1, Mo.
 Wallace Co., William, Metalbestos Div., Belmont, Calif.
 Wallace & Gale Co., 115-119 S. Gay St., Baltimore 2, Md.
 Wall Colmonoy Corp., 19345 John R St., Detroit 3, Mich.
 Walsh Refractories Corp., 101 Ferry St., St. Louis 7, Mo.
 Waltham Oil Burner Co., Inc., 1214 Bennington St., E. Boston, Mass.
 Walton Laboratories, Inc., 1186 Grove St., Irvington, N. J.
 Ward Heater Co., 1800 W. Washington Blvd., Los Angeles 7, Calif.
 Ward Leonard Electric Co., 78 South St., Mt. Vernon, N. Y.
 Ward Machinery Co., 564 W. Washington Blvd., Chicago 6, Ill.
 Warner Ventilator Co., LeGrange, Ind.
 Wasco Flashing Co., 87 Fawcett St., Cambridge, Mass.
 Washington Steel Corp., Washington, Pa.
 Wassco Electric Products Corp., 126 W. Cass St., Joliet, Ill.
 Water Cooling Corp., 71 Nassau St., New York 38, N. Y.
 Water Cooling Equipment Corp., 8601 New Hampshire Ave., St. Louis 23, Mo.

Water Cooling Tower Co., 5501 Cornell Ave., Chicago, Ill.
 Waterloo Register Co., Inc., P. O. Box 72, Waterloo, Ia.
 Waterman-Waterbury Co., 1121 Jackson St., N. E., Minneapolis 13, Minn.
 Waverly Heating Supply Co., 31 Union St., Boston 8, Mass.
 Wayne Home Equipment Co., Inc., 801 Glasgow Av., Fort Wayne 4, Ind.
 Weatherall Engineers, Inc., 387 Charles St., Providence 4, R. I.
 Weatherhead Co., 300 E. 131st St., Cleveland 8, Ohio.
 Webb Co., Jervis B., 8951 Alpine Ave., Detroit 4, Mich.
 Webb Machine and Tool Co., Imperial, Pa.
 Webber Co., Inc., A. R., 424 Howard Ave., New Haven 11, Conn.
 Webster Electric Co., DeKoven & Clark Sts., Racine, Wis.
 Wedglock Co., 5446 Satsuma Ave., North Hollywood, Calif.
 Weirton Steel Co., P. O. Box 431, Weirton, W. Va.
 Weiss & Co., H., 113-115 Mercer St., New York, N. Y.
 Weksler Thermometer Corp., 185 E. Merrick Rd., Freeport, N. Y.
 Welbilt Stove Co., Inc., Maspeth 78, N. Y.
 Weldex, Inc., 2200 W. Fort St., Detroit 16, Mich.
 Welding Machines Mfg. Co., 17325 Lamont Av., Detroit 12, Mich.
 Weldit, Inc., 990 Oakman Blvd., Detroit 6, Mich.
 Wells Mfg. Corp., 1818 Wilson Av., Three Rivers, Mich.
 Werner Co., Inc., R. D., 295 Fifth Av., New York 16, N. Y.
 Western Blower Co., 1800 Airport Way, Seattle 4, Wash.
 Western Engineering & Mfg. Co., 4114 Ocean Park Ave., Venice, Calif.
 Western Felt Works, 4029 Ogden Av., Chicago 23, Ill.
 Western Mineral Products Co., 1720 Madison St., N. E., Minneapolis 13, Minn.
 Western Precipitation Corp., 1016 W. 9th St., Los Angeles 13, Calif.
 Western Rock Wool Corp., P. O. Box 545, Huntington, Ind.
 Westinghouse Electric Corp., P. O. Box 868, Pittsburgh 30, Pa.
 Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va.
 Westinghouse Electric Corp., Electric Appliance Div., 633 Page Blvd., Springfield 2, Mass.
 Westinghouse Electric Corp., Lamp Div., Bloomfield, N. J.
 Westinghouse Electric Corp., Sturtevant Div., 105 Readville St., Hyde Park, Boston 36, Mass.
 Weston Electrical Instrument Corp., 614 Prelinghuysen Av., Newark 3, N. J.
 West Wind Corp., 1800 Airport Way, Seattle 4, Wash.
 Wheelco Instruments Div., Barber-Colman Co., Rockford, Ill.
 Wheeler Mfg. Co., C. H., 19th & Lehigh, Philadelphia 32, Pa.
 Wheeling Corrugating Co., Wheeling Steel Bldg., Wheeling, W. Va.
 Wheelock Co., Geo. F., The, 3017 S. Second Av., Birmingham 3, Ala.
 Whipple Sheet Metal Works, M. S. & L. H., 913 E. Shiwassee, Lansing 12, Mich.
 Whirlaway Motors, Tippecanoe City, Ohio.
 White-Rodgers Electric Co., 1209 Cass Ave., St. Louis 6, Mo.
 Whitehall Engineering Co., 506 N. Dearborn St., Chicago 10, Ill.
 Whiteley Bearing Corp., 1238 S. Ashland Ave., Chicago 8, Ill.
 Whiting Corp., 157th St. & Lathrop Av., Harvey, Ill.
 Whiting Fire Power Products Corp., 1101 John Ave., Superior, Wis.
 Whitlam Mfg. Co., J. C., Wadsworth, O.
 Whitney Mfg. Co., W. A., 636 Race St., Rockford, Ill.
 Whitney Metal Tool Co., 91 Forbes St., Rockford, Ill.
 Whitty Co., Inc., 86 Western Av., Boston 34, Mass.
 Wickwire Spencer Steel Div., Colorado Fuel & Iron Corp., 575 Madison Ave., New York, N. Y.
 Wiedemann Machine Co., 4272 Wissahickon Ave., Philadelphia 32, Pa.
 Wielands Incorporated, 18 Locust Lane, Pittsburgh 28, Pa.
 Wilbur & Williams Co., 130 Lincoln St., Brighton 35, Mass.
 Wilde Register & Grille Co., 424 Bellevue, Detroit, Mich.
 Wilder Mfg. Co., Inc., Box 880, Carmel, Calif.
 Wilder Mfg. Co., 2300 S. Main St., Niles, Ohio.
 Wilder Products Co., 2422 Columbus Av., Springfield, Ohio.
 Will-Burt Co., Orrville, Ohio.
 Williams Div., Eureka-Williams Co., Div. of Henney Motor Co., Inc., 1201 E. Bell, Bloomington, Ill.
 Williams Radiator Co., 1821 Flower St., Glendale 1, Calif.
 Williamson Heater Co., 3500 Madison Rd., Cincinnati 9, Ohio.
 Willis Steel Corp., 156 N. Academy St., Galesburg, Ill.
 Willson Products, Inc., 248 Thorn St., Reading, Pa.
 Will-Weld Mfg. Co., Inc., 1523 Marcy St., Omaha 2, Nebr.
 Wilson & Co., Inc., 4100 S. Ashland Av., Chicago 9, Ill.
 Wilson, Inc., Grant, 141 W. Jackson Blvd., Chicago 4, Ill.
 Wilson, Inc., K. R., Arcade, N. Y.
 Wilster, Inc., 5700 Detroit Av., Cleveland 2, Ohio.

Windmaster Corp., P. O. Box 776, Columbus 16, O.
Wind-Way Fan & Ventilator Co., 527 St. Joseph St., New Orleans 12, La.

Wing Mfg. Co., L. J., 306 Vreeland Mills Rd., Linden, N. J.
Winkler & Sons, Inc., A. E., 2337 N. 31st St., Milwaukee 10, Wis.

Wiremold Co., Hartford 10, Conn.

Wisconsin Oil Burner Co., 2720 Emil St., Madison 5, Wis.

Wise Furnace Co., South 21st St., Newark, Ohio

Wiss & Sons Co., J., 11-45 Littleton Ave., Newark 7, N. J.

Wittenmeier Machinery Co., 850-860 N. Spaulding Ave., Chicago 51, Ill.

Wodack Electric Tool Corp., 4627 W. Huron St., Chicago 44, Ill.

Wolfe-Kote Co., 1225 N. 8th St., Sheboygan, Wis.

Wolff and Co., Benjamin, 1945 N. Cornell Ave., Melrose Park, Ill.

Wolverine Tube Div., Calumet & Hecla, Inc., 1850 Guardian Bldg., Detroit 26, Mich.

Wonderod Corp., 4232 Lancaster Ave., Philadelphia 4, Pa.

Wood Conversion Co., First National Bank Bldg., St. Paul 1, Minn.

Wood Steel Co., Alan, P. O. Box 112, Conshohocken, Pa.

Wood Co., John, Heater & Tank Div., Conshohocken, Pa.

Wood's Sons Co., T. B., 1275 Fifth Av., Chambersburg, Pa.

Woolley Engineering Co., 13827 Fenkell Ave., Detroit 27, Mich.

Worcester Brush & Scraper Co., Div. Mason Worcester Co., 38 Austin St., Worcester 2, Mass.

Worcester Pressed Steel Co., 99 Barber Av., Worcester 6, Mass.

Worsham Co., Inc., 808 Ocean Center Bldg., Long Beach 2, Calif.

Worthington Corp., Harrison, N. J.

Wright Hoist Div., American Chain & Cable Co., Inc., York, Pa.

Wright Mfg. Co., 2902 W. Thomas Rd., Phoenix, Ariz.

Wysong & Miles Co., 625 Fulton St., Greensboro, N. C.

Wyzenbeek & Staff, Inc., 223-235 N. California Av., Chicago, Ill.

X

XL Refrigerating Co., 1834 W. 59th St., Chicago 36, Ill.

X-Pando Corp., 43-15 36th St., Long Island City 1, N. Y.

XXth Century Heating & Ventilating Co., 96 Ira Av., Akron 1, Ohio.

Y

Yale & Towne Mfg. Co., The, 11000 Roosevelt Blvd., Philadelphia 15, Pa.

Yardley Plastics Co., 138 Parsons Ave., Columbus 13, Ohio

Yarnall-Waring Company, Chestnut Hill, Philadelphia 18, Pa.

Yeomans Bros. Co., 1999 N. Ruby St., Melrose Park, Ill.

Yoder Co., 5500 Walworth Av., Cleveland 2, Ohio.

York Corp., Roosevelt Av., York, Pa.

York Corrugating Co., Adams St. & W M RR., York, Pa.

York-ShIPLEY, Inc., Jessop Place and P. R. R., York, Pa.

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Youngstown Furnace Co., 627 Marshall St., Youngstown, Ohio.

Youngstown Sheet & Tube Co., Stambaugh Bldg., Youngstown 1, Ohio.

Youngstown Welding & Engineering Co., Youngstown, O.

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Zeh Co., Inc., 364 Highland Av., Passaic, N. J.

Zeh & Hahnemann Co., 182-200 Vanderpool St., Newark 5, N. J.

Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.

Zick Sheet Metal Works, 25150 W. Warren Ave., Dearborn, Mich.

Zink Co., John, 4401 S. Peoria St., Tulsa 1, Okla.

Zonolite Co., 135 S. LaSalle St., Chicago 3, Ill.

INDEX TO ADVERTISERS

A & A Register Co., The	250
Accurate Sheet Metal & Mfg. Works	266
Adams Co., The	256
Adams Mfg. Co.	184
Adelta Mfg. Co., Inc.	9
Advance Furnace Co., The	191
Aerofin Corp.	242
Air Controls, Inc., Div. of the Cleveland Heater Co.	192
Air Control Products Inc. Inside Front Cover	
Airtemp Div., Chrysler Corp.	179
Ajax Furnace Fitting Co., Div. Cincinnati Sheet Metal & Roofing Co.	259
Allen Co., Inc., L. B.	238
Allen Cooler & Ventilator Inc.	263
Alton Mfg. Co.	251
American Air Filter Co., Inc.	173
American Brass Co., The	212
Anemostat Corp. of America	198
Armco Steel Corp.	189
Auer Register Co., The	58, 59
Auto-Plo Corp.	226
Automatic Humidifier Co.	259

Banner Burner Co.	260
Barber-Colman Co.	42
Barkow Mfg. Co., August G.	177
Beckett Co., Thomas	248
Beckett Corp., R. W.	180
Berger Bros. Co.	264
Berger Furnace Co.	181
Bethlehem Steel Co.	47
Bett-Marr Manufacturing Co.	190
Beverly Shear Mfg. Co.	234
Birks Mfg. Co.	266
Boston Machine Works Co.	252
Brandes Company	246
Brauer Supply Co., A. G.	188
Brundage Co.	195
Burgess Thomas Co.	196

Cam-Stat, Inc.	134, 135
Carey Electronic Engineering Co., Metal Wool Div.	211
Carrier Corp.	Outside Back Cover
Central-West Machinery Co.	267
Century Electric Co.	217
Century Eng. Corp.	35
Champion Furnace Pipe Co.	11
Char-Gale Mfg. Co.	214
Chase Brass & Copper Co.	186
Chevrolet Motor Div., General Motors Corp.	104
Cincinnati Elbow Co., The	245
Cincinnati Shaper Co., Inc.	23
Circulaire Div., Corlett-Turner Co.	253
Clarage Fan Co.	55
Cleveland Humidifier Co., The	251
Cole-Sewell Engineering Co.	259
Comfort Products Corp.	182
Condensation Engineering Corp.	243
Continental Steel Corp.	7
Copeland Refrigeration Corp.	197
Crecent Tool Co.	168
Crise Controls Div., Acro Mfg. Co.	178
Crucible Steel Co. of America	133

Delta Heating Corp.	258
Detroit Controls Corp.	164
Diamond Mfg. Co.	258
Dieckman Co., Ferdinand, The	255
Doyle Vacuum Cleaner Co.	254, 267
Dreis & Krump Mfg. Co.	207
Dry & Sons, J. R.	240
Duro-Dyne Corp.	19

Elgen Mfg. Corp.	231
Elgo Shutter & Mfg. Co.	249
Empire Chemical Products Co.	258
Empire Ventilation Equipment Co.	241
Evans Corp., The George	157
Excelator Steel Furnace Co., The	244

Fallsington Mfg. Co.	213
Famous Furnace Co., The	265
Field Control Div. of H.D. Conkey & Co.	208
Frank & Eric	261
Frey & Co., Frank P.	266
Frigidaire Div., General Motors Corp.	194

General Electric Co.	193
General Filters, Inc.	223
Gerett Corp., M. A.	170

Gibson Industries	261
Glass Fibers, Inc.	206

Hallmor Inc.	265
Hall-Neal Furnace Co.	44, 45
Harper Metal Products Ltd.	53
Hart & Cooley Mfg. Co.	24, 25
Heil Co., The	187
Henry Furnace Co., The	68, 69
Hexdall Co., A. M.	236
Hussey & Co., C. G.	209

Independent Register Co., The	48
Ingersoll Conditioned Air Div., Borg-Warner Corp.	138, 139
Inland Steel Products Co.	32
International Heater Co.	56, 57

Janitrol Div. Surface Combustion Corp.	147
Jettsonaire, Inc.	210
Johnson Gas Appliance Co.	263
Johnson Ladder Shoe Co.	267
Juniper Elbow Co., Inc.	267

Kirk & Blum Mfg. Co., The	256
Krueger Sentry Gauge Co.	6

LaCrosse Steel Roofing & Corrugating Co.	263
Lennox Furnace Co.	163
Levov, David	265
Lima Register Company	205
Livingston, Inc.	264
Lockformer Co., The	13

Maid-O'-Mist, Inc.	200
Majestic Co., Inc., The	171
Malco Products	239
Mammoth Furnace Co.	49
Marshalltown Mfg. Co.	255
Metromatic Mfg. Co.	137
Meyer & Bro. Co., F.	81
Miller & Doing	260
Miller Product Co.	252
Milwaukee Gas Specialty Co.	41
Minneapolis-Honeywell Regulator Co.	39, 40
M-M-A, Inc.	253
Modine Mfg. Co.	175
Moncrief-Lenoir Mfg. Co.	237
Morey, Dan	218
Morrison Products, Inc.	176
Morrison Steel Products, Inc.	60, 61
Morse-Smith-Morse, Co., The	245
Morton Engineering Services, Paul S.	257
Mueller Climatrol Division of Worthington Corp.	20, 21

National Lock Company	12
National Metal Fabricators	261
National Super Service Co., Inc.	260
Nelson, Herman Div. of American Air Filter Co., Inc.	173
Niagara Furnace Div., Forest City Foundries Co., The	169
Niagara Machine & Tool Works	142
Nu-Way Corp.	10

Obdyke, Inc., Benjamin P.	243
Ohio Valley Hardware Co. Inc.	227
Olsen Mfg. Co., C. A., The	16
Owens Co., H.	262
Owens-Corning Fiberglass Corp.	67

Parker-Kalon Div., General American Transportation Corp.	252, 253
Patten Co., J. V.	199
Peck, Stow & Wilcox Co., The	249
Peerless Electric Co., The	70
Peerless Furnace & Foundry, Inc.	150
Penn Controls, Inc.	62
Perfection Stove Co.	202
Perfec Corp.	143
Premier Co.	233
Primor Products, Inc.	174

Quickdraft Co., Div., Herring-Hall-Marvin Safe Co.	255
Quiet Automatic Burner Corp.	257
Quincy Stove Mfg. Co., The	228

Radiant Utilities Corp.	262
Randall Graphite Bearings, Inc.	229
Reiner & Campbell Co., Inc.	267
Reliable Gas Products Co.	259
Revere Copper & Brass, Inc.	103
Reznor Mfg. Co.	235
Richmond Radiator Co.	26, 27
Ryerson & Son, Inc., Jos. T.	76

San Angelo Foundry & Machine Co.	237
Schaefer Brush Mfg. Co.	146
Schwab Furnace Co.	256
Scully Signal Co.	232
Sequoia Mfg. Co.	160
Shana Mfg. Co.	235
Skuttle Mfg. Co.	151
Smith Corp., A. O.	152
Smith, R. E.	254
Southwest Mfg. Co.	185
Speed-Seam Co.	230
Standard Stamping & Perforating Co.	37
Steel City Furnace Corp.	220
Sterling Air Conditioning Corp.	221
Stewart Mfg. Co.	219
Stewart-Warner Corp., U. S. Machine Div.	215
Stic Klip Mfg. Co., Inc.	264
Sunbeam Air Conditioner Div., American Radiator & Standard Sanitary Corp.	166, 167
Sundstrand Engrg. Co.	8
Sundstrand Machine Tool Co., Hydraulic Div.	3
Sun-Ray Burner Mfg. Corp.	225
Surface Combustion Corp.	147
Swartwout Co., The	257
Superior Metal Fabricating Co.	222
Syncromatic Corp.	5

Tecumseh Products Co.	148
Thatcher Furnace Co.	154, 155
Thermal Agency	262
Thermo-Base Div., Gerwin Industries Inc.	203
Thompson & Co.	263
Thor Metal Products Co., Inc.	265
Thor Tool & Die Co.	268
Titus Inc.	125, 126, 127, 128
Turner Brass Works, The	233
Tuttle & Bailey, Inc.	130, 131

Union Asbestos & Rubber Co.	Inside Back Cover
United States Air Conditioning Corp.	141
United States Register Co.	72, 73
United States Steel Corp.	28, 29, 165
U. S. Steel Supply Div., United States Steel Corp.	165
Universal Diffuser Corp.	145
Utility Fan Corp.	18

Van Packer Corp.	30, 31
Vectaire Mfg. Co.	50
Viking Air Conditioning Corp.	172

Walker Mfg. & Sales Corp.	216
Wallace Co., William	231
Washington Steel Corp.	22
Waterman-Waterbury Co., The	64, 65
Weirton Steel Co.	52
Westinghouse Electric Corp., Sturtevant Div.	204
Wheeling Corrugating Co.	201
Whitney Mfg. Co., W. A.	75
Whitney Metal Tool Co.	268
Williamson Heater Co., The	14, 15
Willis Steel Corp.	206
Wilson, Inc., Grant	224
Windmaster Corp.	239
Wisconsin Oil Burner Co.	241
Wodack Electric Tool Corp.	267
Worthington Corp.	158, 159
Wysong & Miles Co.	38

Zatko Metal Products Co.	237
Zink Co., John	183

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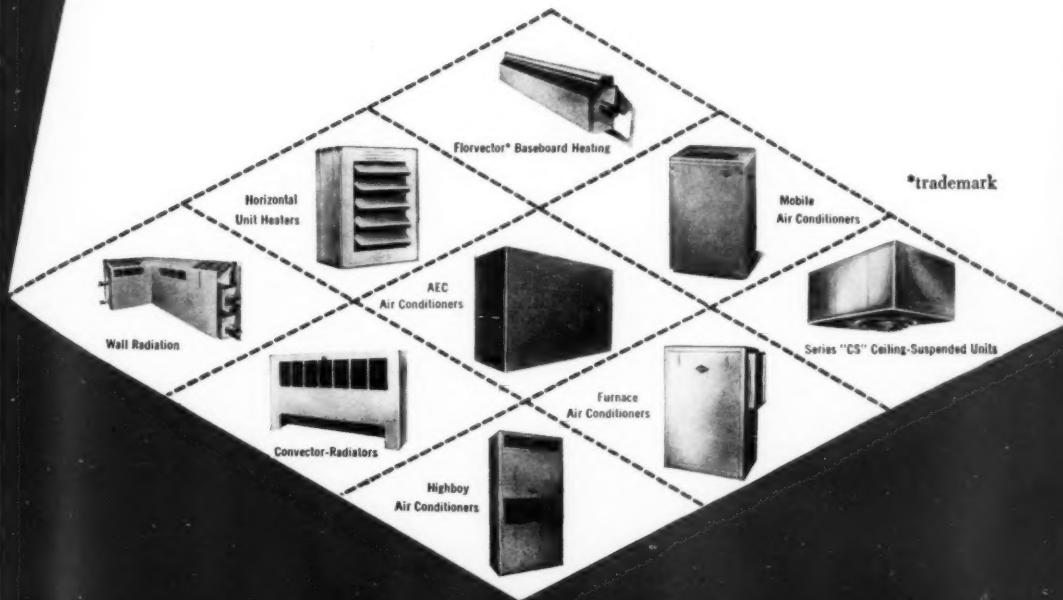


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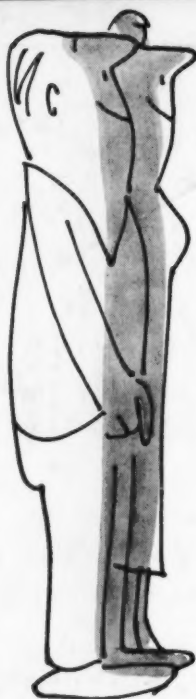
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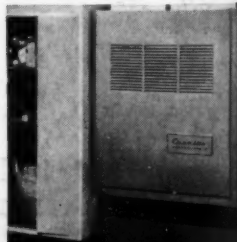
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